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THE CUTTER AND GUIDE ;

A

NEW SYSTEM

FOR INSTRUCTION IN THE

ART AND SCIENCE OF GARMENT CUTTING,

FOR ALL THE

VARIOUS FORMS OF THE HUMAN BODY.

BY

AUGUSTUS KOCH.

ILLUSTRATED BY

FIFTEEN

PLATES OF FINELY ENGRAVED DIAGRAMS AND FIGURES,
WITH FULL INSTRUCTIONS FOR DRAFTING THE VARIOUS STYLES OF COATS,
VESTS AND PANTS.

POUGHKEEPSIE, N. Y. :

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AUGUSTUS KOCH,

In the office of the Librarian of Congress at Washington, D. C.

PREFACE.

THIS IMPROVED VOLUME, which is introduced by these few lines, is in reality the SECOND EDITION of the Author's celebrated SYSTEM published in 1876, then entitled "*The Cutters' Centennial Guide*," which is so extensively and successfully used in almost every State of the Union.

This Volume, therefore, is intended to unfold the NEW DISCOVERIES and IMPROVEMENTS since then made, in as finely illustrated fashion as the subject will permit or the Author can present it.

That a new departure and radical changes are disseminated in the professional Art of Cutting, need not be argued at this time, for the present work will bear the scrutinizing eye of the candid artist, who will find unfolded to his untiring vision THE MOST SCIENTIFIC PROBLEM ever developed by any author of systems of Garment Cutting.

In this Volume will be found the GRAND COMBINATION of the two great principles upon which true Garment Cutting is founded, which are SIMPLIFICATION and ACCURACY; and the GROUND PLAN underlying these principles comprises ACTUAL MEASUREMENT and DIRECT APPLICATION of the measures to the DRAFT as taken from the Body.

The wonderful invention by the Author of the ONE GRAND NEW MEASURE called "**Shoulder Regulator**," and its direct application to the draft as taken from the Body—in connection with *three* other measures (Front, Back and Waist

Balance,) which are all taken from one point,—never fail, if correctly taken, to produce a well-fitting garment, and accomplish the good result for all the various forms of the human body.

The Work is original in all the general details introduced, both in the Description given, and in the accompanying fifteen Plates of Illustration.

The two FIGURES show the different points and application of the tape-measure; the DIAGRAMS the drafting; and the DESCRIPTION explains the whole in a clear and thorough manner, so that any Cutter of ordinary talent can use the System at once, and with full success.

And, furthermore, the YOUNG MAN who does not understand Cutting at all, can learn it easily from the instruction given in the book, without a personal instructor or teacher.

The Author claims that he has brought out and developed, in condensed form, A TRUE AND RELIABLE WORK ON GARMENT CUTTING,—as only STUDY and EXPERIENCE can offer and produce.

In conclusion, the Author advises all those who intend to study and practice these NEW PRINCIPLES to lay aside all PREJUDICE and follow out the instruction as herein given; and if you thus do, COMPLETE SUCCESS will follow, and you will become a hearty indorser of this valuable Work.

CAUTION.

To all whom it may concern : Notice is hereby given to all persons in whose hands a copy of this work may be placed, that the publisher is the sole proprietor and vender, according to the laws of the United States of America; and any person or persons who attempt to publish, or have it published, in whole or in part, or teach others from the illustrations and instructions herein contained, will hold themselves liable to heavy penalties. And, further, it is understood that this work is not transferable to a third party without a written consent from the publisher, which consent will be attached to the work so transferred; and for any violation thereof, proceedings will be commenced at once against all such offenders.

PRACTICAL HINTS

IN REGARD TO

Measurement and Position of the Customer.

THE MEASUREMENT OF GARMENTS is a subject which brings before us an extensive sphere of important matters on which a large volume might be written; but it is not my intention to do so. The only desire that I have is, to impress the important subject, which is so worthy of study and consideration, on the mind of the Cutter who may use this System. I do not mean by this (or even attempt to do so,) to instruct the skilful Artist who has had many years of practical experience in the profession of Cutting,—he knows all this. It is, therefore, not this class of men which I try to instruct, but it is the young, inexperienced Cutter for whom the subject is intended.

We find many things in regard to measurement, which the Cutter may look upon as very trifling matters,—but nothing in relation to measurement is so trifling and insignificant as not to need full explanation.

We will now begin, and show some of these trifling things, but which are sufficient to produce misfits and alterations whereby hundreds of dollars may be lost every year.

The first one which we will mention is, TALKING TO THE CUSTOMER WHILE YOU ARE TAKING HIS MEASURES.

Let it be understood between you and your employer, or whosoever takes down the measures, not to talk to the customer (if it can be avoided) while you are taking his measures. Nothing is more annoying to the Cutter and injurious to his work than this trifling matter. Now, should you want my reason for this, I will simply state:—when talking is going on, the customer will twist and move about, and consequently will get out of his natural position.

The second hint is: that every Cutter, no matter what system he may have, or use, should have his regular fixed points on the body, from which the tape measure has to be applied; and so long as these points are correct once, and hold good in all cases and forms of the body, and the measures from those points will produce the correct draft, he should stick close to them, and not jump from one experiment to another. We find many Cutters who are like grasshoppers, jumping from one point to another—experimenting in a different measurement for every coat—and are never successful in cutting.

The third practical hint is: We should take all the principal measures which are necessary to produce a correct draft for the form of body—but beyond this, all the *proof* or *check* measures should be avoided. Those measures will do more harm than good to the Cutter.

Fourth: All the necessary measures should be taken without instrument, and with tape only.

It is a well known fact, that there are systems of garment cutting wherein an almost endless amount of measures have to be taken, and to produce them the Cutter must use a MEASURING SQUARE OR MEASURING MACHINE in which the customer is placed, like a horse in harness. Now, this is not alone the most *disagreeable* thing for customer and Cutter, but it is also the *worst thing* ever invented, because more blunders are made with this class of instruments than we can imagine.

The fifth practical hint is: That all these measures which may be necessary for any one system should be taken correctly and with utmost care, so that they will give the actual amount which the body calls for; and in not doing so, we find the cause why some cutters will get in trouble more or less, and then discard their System and fly to a new one. Now this is a great mistake:—failure and trouble must occur with the best System, if a careless measurement is taken.

It stands to reason that, should we make an error in the measurement, it is certain that the same error will be made in the draft. And, again, if we can expect a good fitting garment at all, it necessarily is because we have the correct measure by which the good fitting garment is produced. This is applicable to any one System which the Cutter may use.

Sixth. To accomplish the good result, and to secure a correct measurement,—The only safe and sure plan is, that all the measures should be taken over the Vest. No doubt some Cutters will say, 'this is a very difficult matter to do.' Now every Cutter of experience must confess, that when the measures have to be taken over a bad-fitting Coat, it is the most difficult work that a cutter can undertake. If this is true, why, then, should the measures taken over the Vest be more difficult than otherwise? It is certainly as easy, if not more so, as any other plan in existence.

The measurement over the Vest has certain advantages. Take, for instance, the Coat which is more or less wadded, yes, some, we must say, are stuffed out with wadding,—now, then, is it possible for any one to ascertain the real amount which the Body actually calls for? while, on the other hand, by taking the measures over the Vest, nothing will interfere, and we will have just so much—no more, no less.

Again: Supposing the customer is one-sided, one shoulder lower than the other—it will not be noticed when the coat is on, because the shoulder is raised up with wadding so that it will appear level with the other. Now, if the customer does not caution the Cutter, he will discover the error when the garment is finished, and by the alterations which must follow; while, by taking the measures over the Vest, we have the whole form before us, and nothing will hide its defects from notice. These few remarks we deem sufficient to show the advantages of measuring without SQUARE and COAT.

But there is another very important point that we must impress upon the mind of every Cutter, which is of like importance as the measurement itself, if not more so.—and this is: Before we can expect a correct measurement at all, it is absolutely necessary that the customer must stand in his

NATURAL POSITION.

We can say from experience, that in a majority of cases, where customers come to the Cutter to have their measures taken, we will find very few stooping or disproportioned men; even the most stooping forms will stand straight, or nearly so. Now, should we establish our points and apply the tape measure to the form in such an unnatural position, it is impossible that the garment would fit when they stand in their natural shape. The question may arise, how do we know if the customer is in his natural position? and if so, how can we avoid it? My answer to this question is, Take a "quiet survey" of your customer as he enters your cutting room, and as he is looking at the fashion plate, or in any other way opportunity may offer; and by doing so, you can judge very nearly of the figure you may have to clothe. Now, should he present himself to you in any other form when you are ready to establish the points and take the measure, then talk to him and attract his attention to some other things, and you will soon find that he has come to terms will show, perhaps, his round shoulders, and stand in his usual position.

Supposing, now, that this be the case, we then go on and mark our Points, as illustrated by FIGURE 1 and FIGURE 2.

PLATE I.

Illustration of Points and Measurement.

Figure 1 and Figure 2.

IN THIS SYSTEM we have only one point that requires the plumb line, and this point we find by Eye measure. But as we desire that the location of this point shall be fully understood by all who may use this System, we will explain it with a ruler to the new beginner:

Bring the Vest smoothly down to the body at the waist, and fasten it to the pants with a pin so it will stay in its place. Now take a short ruler, place it against the right front arm, let it run down in a plumb line, and draw a chalk mark at D, or waist, on the same side of ruler that rests on arm. Having this line, then draw a chalk mark crossways above the hip-bone, in the most hollow part of the body, so that these two marks will show thus +, and we have POINT D, Figure 2.

Now make a mark lengthways in centre of back, at neck, as at A, Fig. 1. Then make a mark crossways, at a point where the top of back

shall join the collar, (say one inch below the top or crease of collar,) so that these marks will show thus +, and we have POINT A, Figure 1.

Then make a chalk mark lengthways in centre of back, as at K, thence crossing at a point about one-third of top and bottom of arm, from bottom of arm up, and we have the POINT K, Fig. 1. It is a good plan, when the waist length is taken from A to B, to note the exact amount from A to K.

Next, make a mark in centre of back at waist, and we have POINT E, Figure 1.

These four Points which we have now established will produce the Balance of the Coat, and therefore the Cutter should locate them with the greatest care.

Having located those Points, we then go on to show

THE MEASUREMENT.

Bring the tape on + A, Fig. 1; measure to K, (say

FIG. 1.

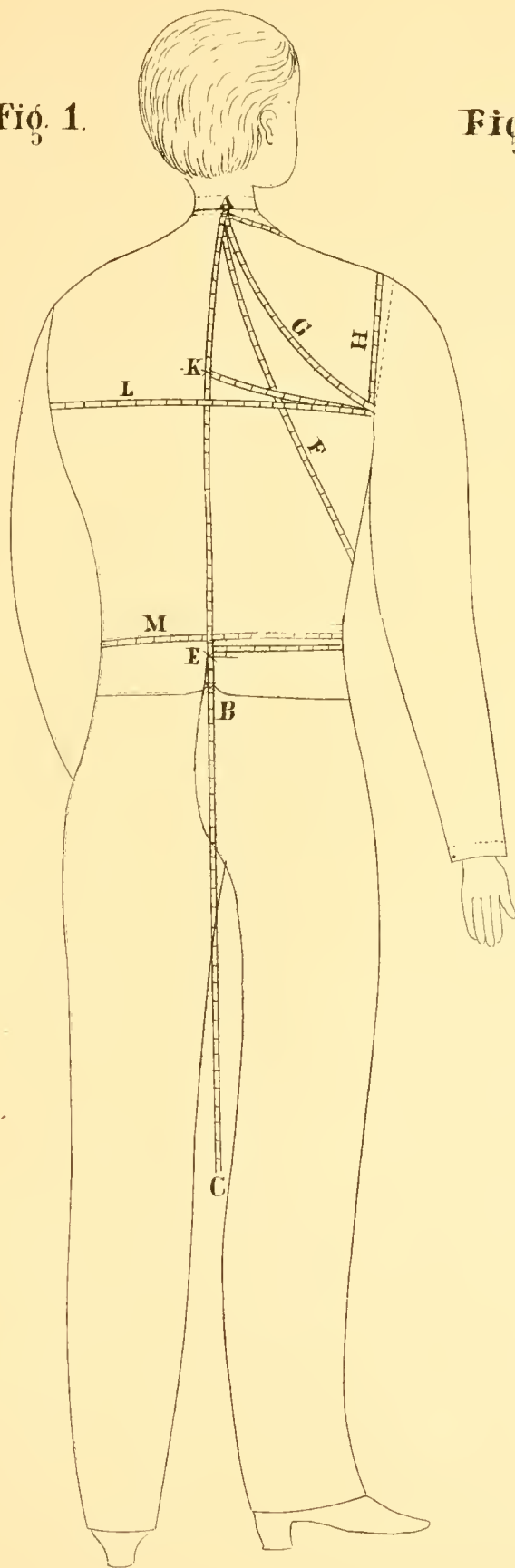
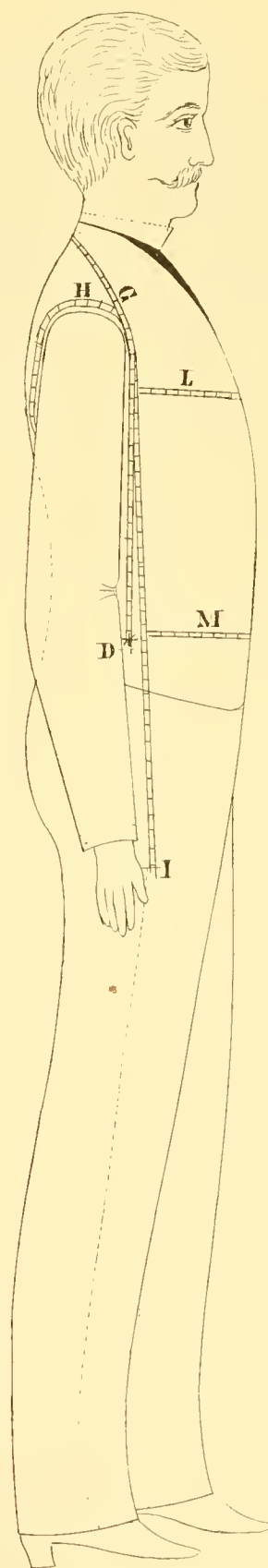


FIG. 2.



$6\frac{1}{4}$ inches); let it run down to B, for full length of waist, (say $18\frac{3}{4}$ inches), thence to C, full length of coat (say 38 inches). These three measures may be taken before your customer has laid off his coat; and those not experienced in measuring over the vest may adopt that plan at the beginning, and thus make a gradual change if they deem it advisable to do so.

Now place the tape measure on +, A, Fig. 1, and measure from that point, as follows:

From A, down in back in a direct line to + D, Fig. 2, as line F, Fig. 1 indicates, (say $19\frac{1}{2}$ inches), and we have the Back Balance measure. Bring the tape over the front shoulder, and measure from A, down in front of arm to + D, Fig. 2, (say $20\frac{1}{2}$ inches), and we have the Front Balance. Extend the tape measure to I, or hand, for full length of sleeve, (say $31\frac{1}{2}$ inches).

NOTE: The measure for sleeve length may be taken in another form, as follows: Raise the arm in horizontal line with the body, have the elbow slightly bent. Then measure from centre of back to elbow, (say 20 inches), then to the hand, full length of sleeve, (say $32\frac{1}{2}$ inches). We leave this for the Cutter to decide which measure he will adopt.

Having the tape measure yet in front of arm as before stated, then measure from A, down in front of the arm, bring the tape around under the arm in a close-fitting manner, (close, but not tight), then up to the starting point A, as indicated by line G, Figures 1 and 2, (say $26\frac{1}{2}$ inches), and we have the Arm-depth measure.

Now, let the tape measure rest in that position in front and under the arm, and bring the tape down on back to point K, as shown by Figure 1, (say $23\frac{1}{2}$ inches), and we have the Shoulder measure.

The Cutter will see by this, that all the above measures are taken from Point A, top of back, where the end of the tape is held with the left hand, and with the right hand we apply the tape to the different points.

Now bring the tape measure down on + D,

Fig. 2, and measure to E, centre of back, as shown on Fig. 1, (say $7\frac{1}{2}$ inches), and we have the Back Waist measure. Let the tape measure rest on + D, Fig. 2, bring the tape up in back of arm to top of shoulder, as shown by line H, Fig. 1 and 2, and then across the *acromian process*, or, in other words, one inch from the extreme end of shoulder point, in a smooth-fitting manner, then down in front of arm to the starting point + D, (say 31 inches), and we have the *grand new* measure called

THE SHOULDER REGULATOR.

NOTE: Before taking this measure, see that your customer's shoulder is down in natural position, not raised or drawn back. Again, draw your measure close, but not tight, and should correspond in closeness to Front and Back Balance.

Next apply the tape for Breast Measure, as shown by L, Figures 1 and 2. Bring the tape measure close up under the arms, then across the shoulder blades, and back again to the starting point, (say 36 inches). This measure should be taken quite snug, so that we may have the actual size of Breast.

The next and last measure we now take is the Waist Measure, as shown by line M, Fig. 2. Bring the tape around the waist where the body is the smallest, and note the amount, (say 32 inches).

This completes the measurement, summed up as follows:

$6\frac{1}{4}$ inches	Point of shoulder measure.
$18\frac{3}{4}$	" Full length of waist measure.
38	" Full length of coat.
$19\frac{1}{2}$	" Back balance measure.
$20\frac{1}{2}$	" Front balance "
$31\frac{1}{2}$	" Sleeve length "
$26\frac{1}{2}$	" Arm depth "
$23\frac{1}{2}$	" Shoulder "
$7\frac{1}{2}$	" Back waist "
31	" Shoulder Regulator measure.
36	" Breast measure.
32	" Waist "

THE COAT SYSTEM.

PLATE II.

Diagram A.

SHOWING THE DRAFT OF A DOUBLE-BREASTED FROCK COAT.

Draw a line in centre of back as from O to O. Square out at right angle from A to Y. Both of these lines are the construction lines from which we apply the measure to complete the draft.

The next point which we must now establish is line B, or front of arm scye, and this we do by the *shoulder measure*, which calls for $23\frac{1}{2}$ inches in the measurement.

Take this measure, divide it in two equal parts, and apply one-half, ($11\frac{3}{4}$ inches), from A to B, and the correct point for the front of arm scye is established. (This point will be more fully explained below.) Now, square up from B to D,—which we will call line B.

Next in order is the Front Balance measure, which calls for $20\frac{1}{2}$ inches. Take the amount and apply it from B to D. Square out to K, and the front length of the coat is established.

Then apply the Back Waist measure, $7\frac{1}{2}$ inches, from A to E, and make a mark.

Having this, then draw a short line from B to F, which is in the direction to top of back. Now locate point F. Measure the distance from E to B, ($4\frac{1}{4}$ inches), divide this in six equal parts, and apply one part ($\frac{5}{6}$ inches) from B to F. This one-sixth may be readily found as follows: if you have a division square, then measure the distance from E to B, with the division of 4ths, and whatever the number may be in this (No. 17 in this case), take the same number in the division of 24ths, and you will have the one-sixth from B to F.

Next in order is the Back Balance measure. Take this measure $19\frac{1}{2}$ inches, add one seam, and apply the amount from F to H, and we have the correct length of back. Square out from H to I. Having this, then locate point K. Take the amount from A to B, divide it in four parts, and apply one-fourth, ($2\frac{7}{8}$ inches), from D to K, and make a mark.

Now proceed to locate line L, or bottom of arm scye. Take the arm depth measure $26\frac{1}{2}$ inches, and apply one-half of this measure ($13\frac{1}{4}$ inches)

from K to 3, and make a sweep line with your left thumb-nail. Then apply the same amount ($13\frac{1}{4}$ inches) from H to 3, and make a sweep line also, as shown in Diagram. Now place the square on O O line; let long arm of square rest on crossing of sweep lines at 3, and in that position draw a line from L, through sweep to V, in front, and we have the bottom of arm scye.

Having this, then we establish point J, and by this we find line C.

Take one-third of A and B, ($3\frac{7}{8}$ inches), and bring this from line B to J. Having this point, then apply $\frac{3}{4}$ inch in all cases and sizes from J to C, and square line C up to S.

Now take one-half of B and C, ($2\frac{1}{4}$ inches), add one seam, and bring the amount from H to I—also from D to G. Square out from G to U.

Next in order is line P, or point of back sleeve seam—place the ruler on crossing of B and L lines, let it rest on H, top of back, and make a mark on line C, as at N. Now place the square on centre of back, and square out from P through N to M.

Then mark width of back as at 1 and 2, (say $\frac{3}{4}$ inch on each side of line P,) or any width according to fancy or fashion, and draw line 1 and 2—mark out from 2, for pitch of back, say $\frac{3}{8}$ inch more or less, according to the fashion of the day.

Next apply the measure for length of waist from H to W, $18\frac{3}{4}$ inches. Square out from W to X. Mark up from I, $\frac{3}{4}$ inch for spring of back.

Having all these points, we are now prepared to finish the Back. Shape the centre line of back from L to W. Mark width of back as from A to 4. Then commence and shape the back: draw a line from H to mark above 1, from 1 to 2, from 2 to 3, and from 3 down through 4 to bottom, according to fancy or fashion, and as shown in Diagram A.

Now locate point Q. Divide the distance from L to P in four equal parts, and bring one part from line L up to Q, which gives us the point for front of sleeve seam. Next place the tape on point of side body as at 1, and make a sweep line

PLATE II.

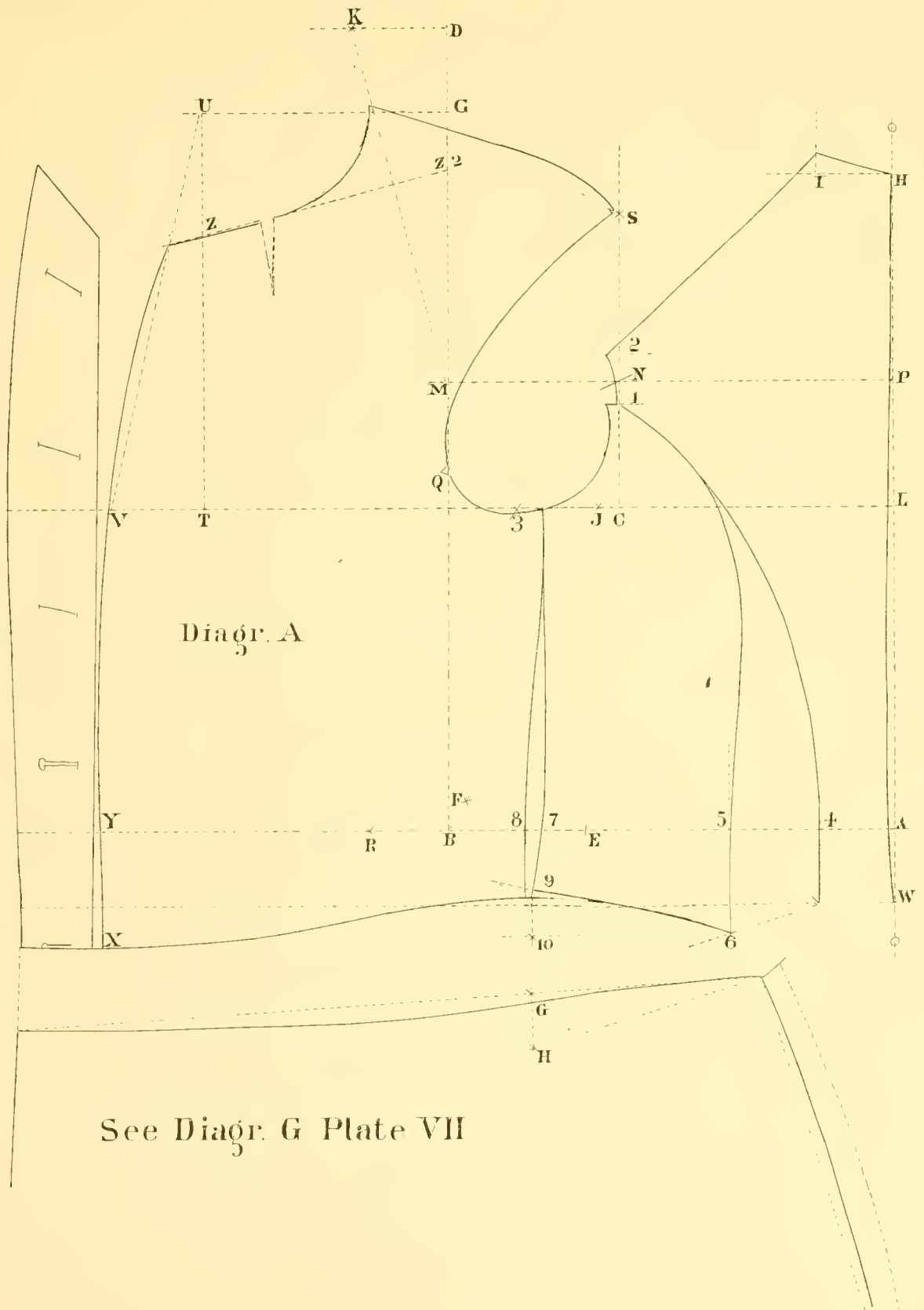
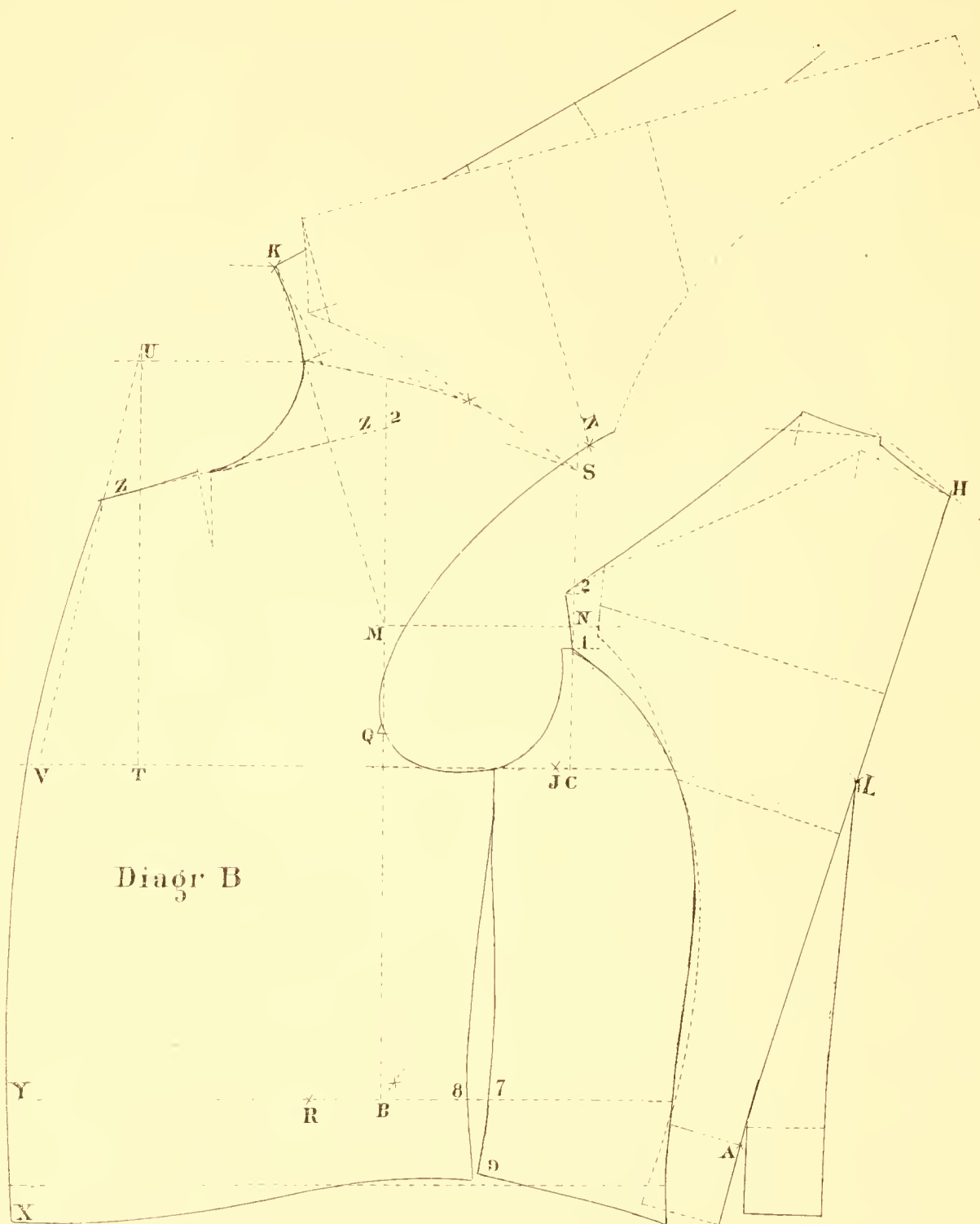


PLATE III.



from bottom of inside seam of back out to 6, which line will give the length of side body. Place the ruler on point K and M, and draw a line. Now locate point R. Measure the distance from line B to C, ($4\frac{5}{8}$ inches), divide this in three equal parts, and apply one-third, ($1\frac{5}{8}$ inches), from B to R, and we have the correct point from which we apply the grand new measure called

“The Shoulder Regulator.”

This we find calls for 31 inches in the measurement. Now take the tape, place it on R, let it run up in a direct line to top of back shoulder seam at line C, (say $14\frac{1}{4}$ inches,) bring the amount, whatever it may be, on R, and apply full length of measure, 31 inches, in a direct line up to S, and make a sweep line out from this point, as shown in Diagram, and we have the correct point by which we draw our line for front shoulder seam.

Now I must draw your attention to the remark which I have made when points 1 and 2 were loca-

ted, as follows: “Mark width of back (say $\frac{3}{4}$ inch) on each side of line P, or any width according to fancy or fashion.” No doubt to the practical Cutter this point is now clear why we have given the liberty of drawing the back shoulder seam higher, or lower, than $\frac{3}{4}$ inch. Supposing we would mark line 2, one inch further up than in Diagram and as above stated, then draw our back shoulder seam by this line: Now apply your Shoulder Regulator measure from R, to top of shoulder at line C, and we have just the same amount more which we have marked up for line 2. Now place the amount on R, mark off 31 inches, up to S, and we find this point is just the same amount lower down; and so *vice versa*. Therefore we say to the Cutter, suit yourself in regard to the shoulder drop of back, and have this point according to your taste or fancy, and the Shoulder Regulator measure will establish point S, accordingly.

Having made this statement, we are ready to cut out the Back, and by doing so proceed and take up—

PLATE III.

Diagram B.

In which we find the necessary instruction to finish the Draft.

First, proceed and finish the front Shoulder. Take the back, bring it on top of front shoulder, let H rest on K and fasten the back at this point with a pin. Having done so, then shove the back in so that top of back will rest on K M line, and point 2, pitch of back, will be $\frac{3}{4}$ inch above sweep line S; and in that position draw a line by back shoulder seam from K M line to * centre of shoulder. Now place the pin at * and shove the back down so it will rest on sweep line S. Draw a line from * to pitch of back. Having this, let the back remain in that position and shape the upper arm seye by back pitch down to Q to 3. Now take the back off and shape the shoulder of front part, from arm seye to * and from that point out to K M line, as shown in Diagram A.

Next proceed and finish the side body and waist. Bring the back to point of side body, let line 1, front and back meet, and fasten the back at this point with a pin. Having done so, then the next thing must be to find the correct rounding of side body from 1 to line L, which will be in harmony with the form of body for which the draft is made. Now to accomplish this to our entire satisfaction, we must apply the shoulder measure, which is the only true guide in this im-

portant matter. Make a mark in centre of back $6\frac{1}{4}$ inches below H, for point of shoulder measure. (See measurement.)

Then take the Shoulder measure, which calls for $23\frac{1}{2}$ inches, add $\frac{3}{4}$ inch for seams in all cases, and apply the full amount, ($24\frac{1}{4}$ inches in this draft), as follows:— From K to Q, then around the front arm seye, in a smooth-fitting manner, to 3, and from 3 in a direct line to centre seam of back and mark made by $6\frac{1}{4}$ inches; shove the back in at bottom until this measure will rest on or meet this point; and when so, then draw a line from 1 to line L, alongside of the back, and we have the correct rounding for the form of the body. Now let the back remain in that position, and shape the arm seye from 1 to 3, as shown in Diagram.

Having this, then place the pin close to the edge of inside line of back at L, and shove the back in below. Now take the Back Waist measure, add $1\frac{1}{4}$ inch in all cases to the measure, and bring the amount ($8\frac{3}{4}$ inches in this case) from B to A, or centre of back, as shown in Diagram; and in that position, draw a line from L to bottom of back, as shown by dotted line. Having this, then finish the side body by these lines: give a little more rounding at top, from 1 to L, and below L, hollow the side body a trifle to A line,

and from there give the necessary spring to 6, whatever the form may need, as shown in Diagrams B and A.

Next, finish the Waist part. Draw a line for width of side body, according to fancy or fashion, as from line L. to 7, to 9. Now we have given $1\frac{1}{4}$ inch more than back waist measure from B to A, $-\frac{3}{4}$ inch of which is necessary for seams; the other half inch we take out between side body and front part, as from 7 to 8. Having this, then draw a corresponding line from L. through 8, to bottom. Next establish the bottom line of side body. Bring the angle of square on 6, Diag. A; let long arm of square rest on H, top of back, and draw a line from 6 to 9, and by this shape the bottom line of side body.

The next thing must be to apply the Breast measure. Close the back to side body, as in Diagram B. Measure out from L. to T, one-half breast measure, 18 inches— from T. to V, $2\frac{1}{2}$ inches in all sizes. Square up from T. to U. From U, draw a line to V. From U. to Z, mark $\frac{1}{2}$ inch more than one-sixth of breast, $3\frac{1}{2}$ inches— from G. to Z. 2. (Diagram A), one-half the amount, $1\frac{3}{4}$ inches—and draw a line by these points, for depth of neck. Now place the back on top of shoulder point, as in Diagram B, and finish the neck gorge as in Diagram.

Next to this we apply the Waist Measure. You will remember that we have applied the back waist measure from B to A. Now bring the amount $7\frac{1}{2}$ inches on line B, mark out to front, one-half waist, 16 inches, and allow one-half inch, or even one inch more for making up, and we have point Y. Note:—The allowance at this point depends entirely on the material, and also on the ease which the customer wishes.

Now commence and finish the front. Draw a line from neck point to V, from V through Y to bottom. Then draw the bottom line; commence one seam below the side body at 9, and strike X in front, and as shown in Diagram.

Next finish the lapel. Draw a line from X to top—extend A and L line out. Mark width at top (say $2\frac{1}{4}$ inches), or fashion—at line L. (say $2\frac{3}{4}$ inches) at A line, (say $2\frac{1}{4}$ inches)—at bottom, (say 2 inches), finish the top according to the fashion of the day. Now proceed and draw the front line from top to bottom, and finish all the rest, as shown in Diagram A and B, and the draft for a double breasted coat is finished.

But here I will say, In case the Cutter should be in doubt that he may not have applied the Shoulder Measure for the rounding of side body as it ought to be, and according to the explanation herein given, then he may prove its correctness by the Back Balance measure, as follows: Mark up from B, to * at F, (Diagram B), the same amount as we have taken out from 7 to 8, or $\frac{1}{2}$ inch; and from this apply the Back Balance, $19\frac{1}{2}$ inches, up to H, and make a sweep line, as shown in Diagram B. Now, if the top of back will rest on this sweep line when brought in a joining position with side body, as in Diagram, then the application of the Shoulder Measure is correct.

Now, as we have finished the draft, and are ready to cut the pattern out, let us take the following measures from the draft while it is whole, and therefore it is more convenient to do so.

First: Close the back and front shoulder at line S, as in Diagram B. Now, measure from N, or P line, around the upper arm scye to Q in front, in a close-fitting manner, and we will find 9 inches in this draft. Note the amount down.

Next: Measure from Q around the lower arm scye up to N, in back, (say $7\frac{3}{4}$ inches). Note the amount down.

Then bring the tape on K, and measure to Q, (say $11\frac{3}{4}$ inches). Note this down also.

These three measures we will need when the draft of Sleeve is made, which we find in Plate VI. Diagrams E and F.

Having these three measures, then cut the pattern out.

THE DRAFT OF A SINGLE BREASTED COAT.

I deem it necessary to state to the young, inexperienced Cutter, that the Single Breasted Coat is drafted in the same manner as the Double Breasted, without any change whatever, except the front, where a certain amount has to be brought out from V and Y.

Now, in regard to the amount which is needed, no fixed quantity can be given, and must be made according to the style of front. We will therefore give a guide only, which may be

FOLLOWED BY THE CUTTER:

For a coat which shall roll down to the 2d button at waist, and which is intended to button up below,—We mark out from V (say $1\frac{1}{2}$ inches) and at Y (say 1 inch) more or less, according to the ease wanted by the customer.

A coat with a short roll, and intended to button up very high,—One inch is sufficient from V out; and below this point the style and fashion will regulate it.

Remarks on the above Draft.

The Draft of Diagrams A and B is now finished and thoroughly explained. Therefore, I deem it my duty to state, that by this single draft the Cutter has (with only one exception, my whole System of the Coat Body. No matter what shape or form he may have to deal with, or for which he may be called upon to pro-

vide a covering, the principal part of drafting is for all alike.

This one exception is, as we have alluded to in the commencement of the draft, by applying one-half of shoulder measure from A to B, or front of arm scye line, and will be fully explained on this page, bearing title "The Shoulder Measure in connection with Front and Back Balance."

THE SHOULDER MEASURE,

IN CONECTION WITH FRONT AND BACK BALANCE.

This is a simple but highly important point, and all those who intend to study and practice this New System should follow the instruction as herein given:

The Cutter will see at once that the *Front* and *Back* Balances measures will bring the length of coat, in front and back; and, according to the length of the Back Balance, the sweep lines at 3 will change more to the front or to the back. (See Diagrams A, C and D.)

And just in the same manner the Shoulder measure must change also, otherwise it will not be in harmony with Front and Back Balance measures.

Now this we do in a very easy and simple way, without any complication whatever.

In the regular proportioned size of coat, (no matter what the size of breast may be), the back balance is always one inch less than the front balance. (See measurement, Diagram A). But as long as the back balance does not run below this one inch, and also not above the front balance, we call it a proportioned size, and apply *one-half* of the shoulder measure from A to B, for front of arm scye line, as shown in Diagram A.

But as soon as the back balance is more than the front balance (as the case will be in stooping forms,) then whatever the amount may be which the back balance is more than front, we add the amount to one-half of shoulder measure, and apply it from A to B, for front of arm scye line.

This is fully illustrated in Diagram C.

Then we take the reverse side, where the back balance runs more than one inch below the front balance (as the case will be in erect forms). In all such cases we deduct the amount which is less than one inch, from the one-half shoulder measure, and whatever is left of the one-half

shoulder we apply from A to B, and draw the front of arm scye line by this point.

To show this more plainly, we suppose the front balance will call for $20\frac{1}{2}$ inches—the back balance 19 inches. Here we have $\frac{1}{2}$ inch which we must deduct from the shoulder measure. Supposing now the shoulder measure calls for 23 inches, one-half of which would be $11\frac{1}{2}$ inches. Now deduct the $\frac{1}{2}$ inch from this, and we have 11 inches, which we apply from A to B.

This is also illustrated in Diagram D, (see measurement)—front balance $23\frac{3}{4}$ inches—back balance 22 inches. Here we have $\frac{1}{4}$ inch which we must deduct from the shoulder measure. Now take one-half shoulder measure, $14\frac{1}{4}$ inches; deduct $\frac{1}{4}$ inch from this and we have $13\frac{1}{2}$ inches, which we apply from A to B, as shown in the draft of Diagram D.

This includes all cases, no matter what the difference may be between front and back balance, and which may exist in one way or the other, and by doing so, the front of arm scye line will be established according to the form of the body which we have measured and drafted for; and the shoulder measure will be brought in harmony with front and back balance.

Now, should any Cutter wish to know the reason for so doing, I will state it to him. In the first case above mentioned, (stooping), the distance from D to bottom of arm scye is less than the proportioned size, and consequently the difference of shoulder measure is made up from L to B, or front of arm scye.

In the second case, (erect), the distance from D to bottom of arm scye is more than the proportioned size, and L to B must be just so much less.

This point B, or front of arm scye line, is of great importance in coat cutting, and therefore we show its effect more fully in the next article.

FRONT OF ARM SCYE, OR B LINE,

AND THE EFFECT WHICH IS HAS IF NOT PROPERLY LOCATED.

The proper and definite location of B line, or front of arm scye, is one of the most important points in coat cutting, and therefore well worthy of study and consideration.

We can say with safety, and without hesitation, that in nine cases out of ten which the Cutter must call misfits, the foundation to these was laid (and can be traced back to this point) by misplacing B, or front of arm scye line.

To prove this, we take the proportioned size of a 36 inch breast,—and in this we have the following measures: From centre of back to front of arm scye $11\frac{3}{4}$ inches, and from this point to centre of breast 9 inches.

Now, take for instance the so called *erect form* with the same breast measure, 36 inches;—and, when measured, we find the distance from centre of back to front of arm scye, or B line, (say $10\frac{3}{4}$ inches), and from this point to centre of breast 10 inches. Now what do these measures say, or indicate? It is simply this: Bring B line one inch more towards the back than in the proportioned size, and we have this line according to the form of the body, and also the actual amount of breast from B to V, or centre of breast, which the form does need.

This is now one side by which we have shown our point. Then take the *stooping form*, with the same breast measure, 36 inches,—and when measured we find the distance from centre of back to front of arm scye (say $12\frac{3}{4}$ inches,) and from this point to centre of breast (say 8 inches.) (See Diagram C.) Now this shows the reverse side from the so-called erect form; and shall we meet the requirements of the form, B line must be drawn one inch further out from the regular proportioned size, and by so doing we have the correct width from centre of back to front of arm scye, and also the correct width of breast.

Supposing now, the Cutter uses the so-called Division or Breast Measure System, which places $\frac{2}{3}$ of breast, from centre of back to front of arm scye, no matter what form the customer may have, erect or stooping, it gives the amount for each one alike. And what will be the result?

In the first case above stated, (erect form,) the

coat will be too full in the back and under the arm, while it will be too narrow in front of breast, because the fullness in back, or extra amount of cloth, which brings the fullness, is needed in front of breast.

In the second case, (stooping form), the coat will be too tight in back to front of arm scye, and too full in front of breast,—because the fullness in front of breast is needed in back. But in this case the Cutter will find more than being tight in back. He finds a big wrinkle from centre of back below the shoulder blades, extending across the side body to front of arm scye, thence up to front shoulder point. The arm scye is too small. Every movement the customer makes shows only too plainly that it is a spoiled garment, which can never be made to give entire satisfaction to the customer, nor to the Cutter. For him it is an eyesore, which he will try to get rid of if possible; and therefore, the next thing he will do is, he goes to work to cut the front of arm scye out and give more room to the wearer. But when the coat is finished and tried on, he will find a worse fit than before.

The question may arise, why should this be so? and we answer: because, when the front of arm scye was cut, all the points on top of front shoulder were changed also and consequently the whole coat is thrown out of balance. It will make the coat somewhat easier by the operation, but it will draw more wrinkles up in front. Then comes wadding in play, and all these points where the wrinkles are will be stuffed out, and by the time the job is completed a hard day's work is done and gone, and the pay for all this trouble and labor is — a bad-fitting coat.

We therefore say, before the Cutter can expect a good and easy-fitting coat, it is necessary for him to locate front of Arm Scye, or B line, in harmony with the figure for which he is called upon to provide a covering.

In this System we accomplish the good result by applying the Shoulder Measure in harmony with Front and Back Balance, in the manner as above stated.

PLATE IV.

Diagr C

See Diagr. I. Plate VII.

Diagr C

See Diagr. I. Plate VII.

PLATE IV.

Diagram C.

SHOWING THE DRAFT FOR THE ROUND SHOULDER STRUCTURES.

In this Diagram we intend to prove our argument in regard to B line, or front of Arm Scye. The breast measure is the same as in Diagram A, 36 inches—and the shoulder measure only $\frac{1}{2}$ inch more than in the first draft. But, as we will find, when the draft is made, the distance from A to B is 13 inches, which is equal to a 39 inch breast,—and from B line to V, only 8 inches, equal to a 32 inch breast.

Now, all these changes the measures will bring for themselves, without any guesswork whatever.

The measurements, we suppose, are as follows :

7	inches	Point of shoulder measure.
19	"	Waist length.
20 $\frac{1}{2}$	"	Back Balance.
19 $\frac{1}{2}$	"	Front Balance.
31 $\frac{1}{2}$	"	Sleeve Length.
27	"	Arm depth measure.
24	"	Shoulder measure.
8 $\frac{1}{4}$	"	Back waist measure.
30 $\frac{1}{2}$	"	Shoulder regulator measure.
36	"	Breast measure.
34	"	Waist measure.

THE DRAFT.

Draw line O to O—square out from A to Y. Take one-half of shoulder measure, 12 inches. Now notice front and back balance: Here we find one inch more back length than front;—add this 1 inch to one-half of shoulder measure, and bring the amount, 13 inches, from A to B. (See "The Shoulder Measure in connection with Front and Back Balance.")

Now square up from B to D, and we have the front of arm scye line, according to the form of the body.

Mark from B to D, front balance, 19 $\frac{1}{2}$ inches—square out from D to K—mark from A to E, back waist measure, 8 $\frac{1}{4}$ inches—draw line from B to F—measure from E to B, 4 $\frac{3}{4}$ inches; divide this in six equal parts, and bring one-part, $\frac{3}{4}$ inch, from B to F.

Now apply back balance, 20 $\frac{1}{2}$ inches, from F to H, and make a short sweep out to top of back—then mark one-half of the amount, which the back balance is more than front balance, (or $\frac{1}{2}$ inch in this case) from centre line out to H, by which we form the top of back, as in Diagram.

Bring the square on H, and draw a line through

sweep and mark made by $\frac{1}{2}$ inch out to I—mark one-fourth of A and B from D to K, 3 $\frac{1}{4}$ inches. Apply one-half of arm depth, 13 $\frac{1}{2}$ inches, from K to 3, make a sweep—then the same amount from H, top of back, to 3, and make a sweep also. Bring square on centre line as at L, let long arm rest on crossing of sweep lines at 3, and down a line from L, through sweep, to V. Mark one-third of A and B, 4 $\frac{2}{3}$ inches, from line B to J—from J to C, $\frac{3}{4}$ inch—square up from C to S.

Bring ruler on crossing of B and L lines, let it rest on top of back at H, and mark for N. Square out from P through N to M—draw a line from M to K—mark width of back pitch as at 1 and 2—mark from H to 1, one-half of B and C, 2 $\frac{1}{2}$ inches—the same amount from D to G, and square out to U. Mark Q one fourth of L and M.

Next apply length of waist measure from H to W—square out to X—mark in from A, (say $\frac{1}{2}$ inch), and shape the back line from H, through mark, to bottom, as shown in Diagram. Mark width of back, from A to 4—mark $\frac{3}{4}$ inch above 1 for spring of back. Having all these points, then shape the back from H to 1—from 1 to 2—from 2 to 1, and from 1 through 4, to bottom of back—sweep by 1, from bottom of inside line of back, out to 6.

Now bring one-third of B and C, or 1 $\frac{3}{4}$ inches, from B to R. Having this point, then apply

THE SHOULDER REGULATOR.

Measure from R to top of back shoulder seam at line C (say 14 $\frac{3}{4}$ inches). Bring the amount on R, and measure to S, full length of measure, 30 $\frac{1}{2}$ inches, and make a sweep out from S, as shown in Diagram A. Now cut the back out, and finish the front shoulder, as shown in Diagram B.

Also shape the upper arm scye to Q, to 3.

Next, place the back to point of side body—fasten it with a pin. Apply the shoulder measure from K to Q, then around the front arm scye to 3, then to centre of back (7 inches below H), full measure, 24 inches, and allow $\frac{3}{4}$ inch more for seams. Now draw a line along side of back from 1 to line L—bring the pin down to L. Apply back waist measure, and 1 $\frac{1}{4}$ inch more, from B to A—draw a line from L to bottom of inside seam of back, and then shape the side body by these lines, as shown in Diagram B. Next draw bottom line of side body, as before shown—draw a

line under the arm for width of side body as at 7—from 7 to 8, mark $\frac{1}{2}$ inch, which we have allowed, from B to A, and shape the front part through 8, as shown in Diagram. Apply the breast measure from L to T (as Diagram B)—from T to V, $2\frac{1}{2}$ inches. Square up from T to U—from U to Z, one-sixth of breast and $\frac{1}{2}$ inch more—G to Z2, one-half the amount—draw a line by these points—also from U to V. Shape the neck gorge.

Next apply the waist measure—bring the back waist measure, $8\frac{1}{4}$ inches, on B, and mark out one-half waist, 17 inches, and allow $\frac{1}{2}$ inch for making up. Having this, then shape the front

line for a Double Breasted Coat. Also draw bottom line of front part, and finish all the rest as shown in Diagram.

Measure upper arm seye from N to Q—then from Q, around the lower arm seye to N—also from K, to Q, and note the amount for draft of sleeve.

The Diagram also shows the Single Breasted Cutaway Coat, to button up high. Measure out from V one inch—at top $1\frac{1}{2}$ inches—and shape the front down by these points.

The explanation of Skirt will be found on Plate VII.—Diagram II.

PLATE V.

Diagram D.

SHOWING THE DRAFT FOR A CORPULENT FIGURE.

The reason for giving this large size of Diagram is, first, to show how easy it is to draft a pattern for this class of men by this System; and, second, to show the application of the Shoulder Measure in reverse to Diagram C.

The measurement will show, that we have the so-called "erect" form of the human body before us—and when the draft is finished it will show that the length of back, from L to H, is $1\frac{3}{8}$ inch less than the regular size of breast measure—from centre of back to front of arm seye $1\frac{1}{8}$ inch less than the regular size of breast, or, in other words, for a breast measure of 41 inches—and consequently the distance from front of arm seye to V is just the same amount more.

The measure we suppose as follows:

$7\frac{3}{4}$	inches	Point of shoulder measure.	
21	"	Waist length	"
22	"	Back balance	"
$23\frac{3}{4}$	"	Front balance	"
36	"	Sleeve length	"
33	"	Arm depth	"
$28\frac{1}{2}$	"	Shoulder	"
9	"	Back waist	"
$34\frac{1}{2}$	"	Shoulder regulator	"
46	"	Breast	"
50	"	Waist	"

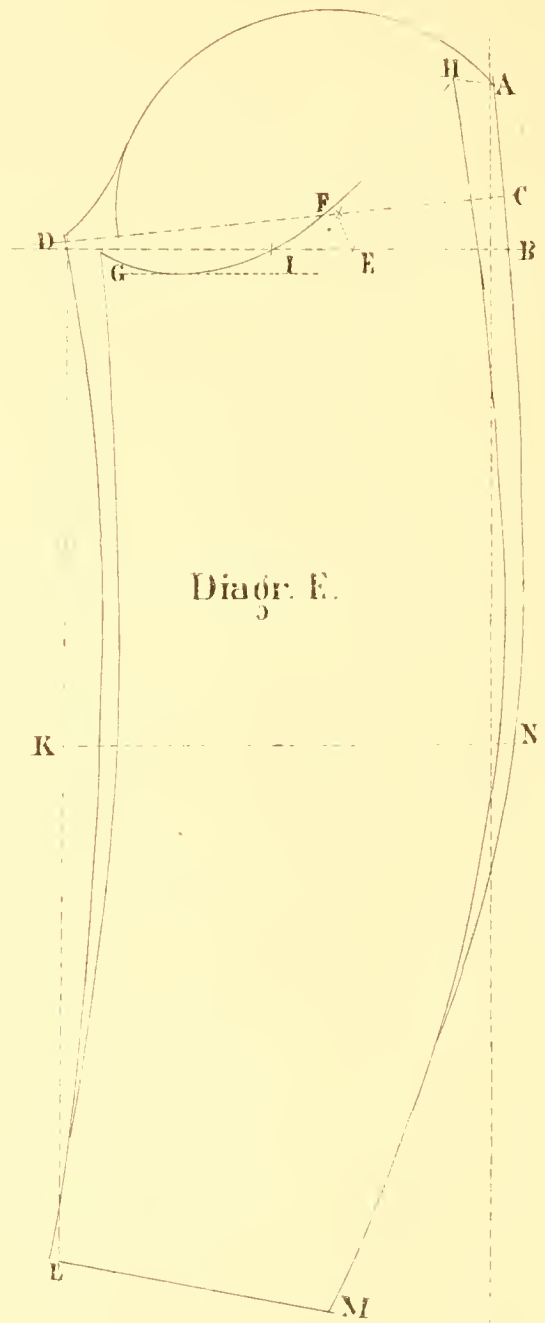
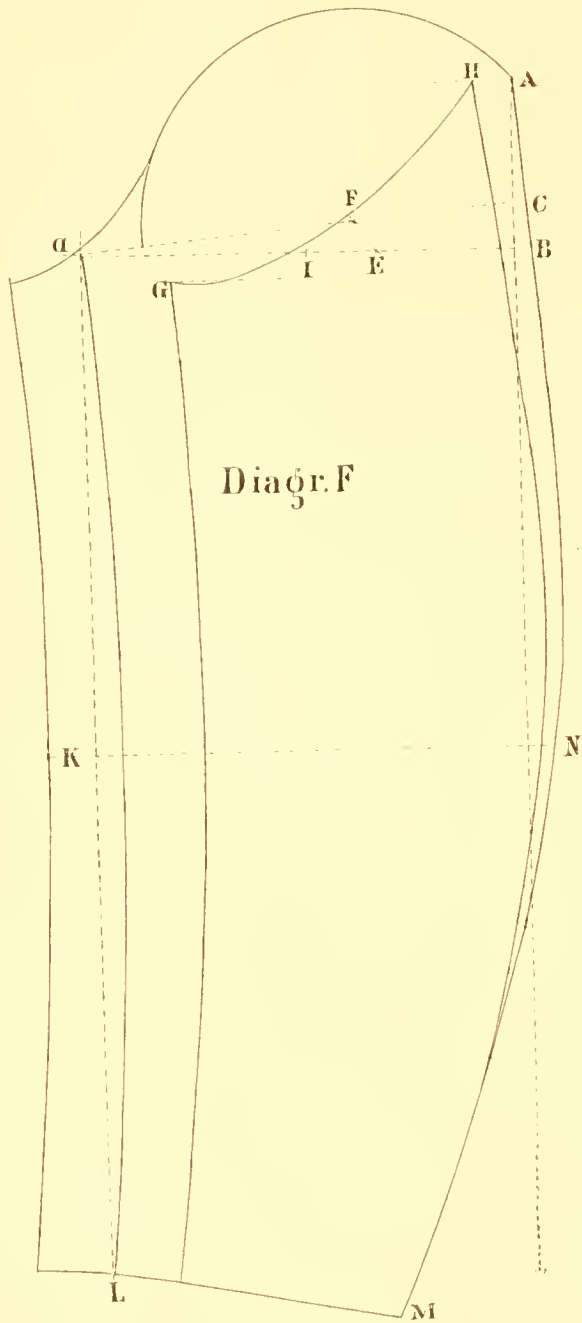
THE DRAFT.

Draw line O to O. Square out from A to Y. Take one-half of shoulder measure, $14\frac{1}{4}$ inches. Now notice front and back balance: Here we find the back balance $1\frac{3}{4}$ inch less than front balance, and consequently we have $\frac{3}{4}$ inch, which we must deduct from one-half shoulder measure

—deduct this, and it gives us $13\frac{1}{2}$ inches, which we apply from A to B, and the front of arm seye point is established. Now square up from B—mark B to D, front balance, $23\frac{3}{4}$ inches—square out to K—A to E, back waist, 9 inches—divide the distance from E to B in six parts, and bring one-sixth, $\frac{3}{4}$ inch, from B to F—F to H, back balance, 22 inches, add one seam. Square out to I. Bring one-fourth of A and B from D to K, $3\frac{3}{8}$ inches. Now apply one-half of arm depth measure, $16\frac{1}{2}$ inches, from K to 3, and make a sweep line—then the same amount from H to 3, and make a sweep also. Place the square on centre of back and draw a line from L, through sweep at 3, to V, in front. Now bring one-third of A and B, from B line to J, $4\frac{1}{2}$ inches—from J to C $\frac{3}{4}$ inch, and square up to S. Bring the ruler on crossing of B L lines; let it rest on H, and mark N—square out from P, through N to M—draw a line from M to K—H to I one-half of B and C—the same amount from D to G—square out to U—mark width of back as 1 and 2. Then apply waist length from H to W—square out to X. Finish the centre line of back from H to W—mark width from A to 4—give $\frac{3}{4}$ inch above I, for spring of back. Now commence and shape the back from H to I—from I to 2—2 to 1, and from 1 down through 4, to bottom. Bring the tape on 1, and sweep out to 6. Take one-third of B and C, $1\frac{3}{4}$ inches, and, bring this from B to R—apply

THE SHOULDER REGULATOR.

From R to top of back shoulder seam at line C, (say $15\frac{1}{4}$ inches), bring the amount, whatever it may be, on R, and then fall measure, $34\frac{1}{2}$ inches,



up to S, and make a sweep, as shown in Diagram. Now cut the back out.

Next, finish the front shoulder as in Diagram B. Also draw upper arm scye to Q, to 3. Then bring the back on side body; let line 1 meet; place a pin at this point. Now apply the shoulder measure from K to Q, then around the front arm scye to 3, and then to centre line of back, ($7\frac{3}{4}$ inches below H), full measure, $28\frac{1}{2}$ inches, and allowed $\frac{3}{4}$ inch more for seams. Then draw a line from 1 to L; place the pin at L, shove the back in on bottom—mark in from B, $1\frac{1}{4}$ inch more than back waist measure, $10\frac{1}{4}$ inches, to A, and draw a line from L to bottom of back. Now finish the side body as shown in Diagram B—draw bottom line from 6 to 9,—also side body line through 7—from 7 to 8, $\frac{1}{2}$ inch, and draw a line from L, through 8 to bottom. Next apply the breast measure from

L, (as in Diagram B) to T—from T to V, $2\frac{1}{2}$ inches—square up from T to U—from U to * the difference between breast and waist measure, 2 inches, and from this point draw a line to V—U to Z, one-sixth of breast and $\frac{1}{2}$ inch more—G to Z 2, one-half of the amount, and draw line out by these marks. Next apply the waist measure bring back waist, 9 inches, on B, and mark out to Y, one-half waist, 25 inches.

Now commence and shape the neck gorge—then draw a line from neck point down to V to Y, to X, as shown in Diagram. Then from bottom of side body out to front, for bottom line of front part, and all the rest as shown in Diagram A and B, and the draft is finished.

(Draft of Collar, see Explanation,
page 18).

THE SLEEVE SYSTEM.

PLATE VI.

Before we show the draft of Sleeve, I must remind the Cutter of these three measures which we have taken from the pattern of Diagram B.

The first one is the Upper Arm Scye, as from N to Q, 9 inches—the second one is the Lower Arm Scye, as from Q to N, $7\frac{3}{4}$ inches—the third one is from K to Q, $11\frac{3}{4}$ inches.

Now, as these measures are directly applied to the draft of Sleeve, it is therefore very important that they should be taken with utmost care, and as nearly as possible correct.

DIAGRAM E.

Draw a line from A to O,—square out to H. Now take the back of Diagram A and mark the distance of L and P lines ($3\frac{1}{4}$ inches) from A to B. Square out from B to D. Now take the upper arm scye measure, 9 inches, and bring the amount in a direct line from A to D, and make a mark.

Place the angle of square on D, let arm of square rest on B, and draw a line down to L, and we have the width of upper sleeve. Now take the pattern of Diagram A, measure the distance in front of arm scye from line L to Q, ($\frac{3}{4}$ inch) and bring this from B to C—draw a line from C to D. Divide the upper arm scye measure in three equal parts, and apply one-third, (3 inches) from B to E. Place angle of square on E, let arm of square rest on C, and draw a line up to F, and we have

now the correct point which will bring the right length of sleeve head.

Now place the tape on F, make this point a pivot, let crayon rest on A, and make a sweep line from A to G. Having this, then shape the front sleeve head from centre of A and B lines to D, striking front line one seam above B line as shown in Diagram.

Next apply the measure for sleeve length, which we find in Diagram A, $31\frac{1}{2}$ inches. Now the measure we have taken from K to Q is $11\frac{3}{4}$ inches. Bring the amount on line B, in front of sleeve, and mark off $\frac{1}{4}$ inch more than full measure to L, $31\frac{3}{4}$ inches. The Cutter will find that the allowance which we have made for seams is $\frac{1}{2}$ inch— $\frac{1}{4}$ inch above line B, and $\frac{1}{4}$ inch at L. Now mark I in centre of B and D—bring angle of square on L, let long arm of square rest on I, and in that position draw a line from L to M. Mark width of sleeve from L to M, according to fashion, (say 6 inches).—mark K in centre of D and L—square out to N—draw front line of sleeve according to fashion. Mark width of sleeve from front line to N, (say 9 inches, more or less.) Having this, then draw the back line of sleeve from A through N to M, as shown in Diagram E.

THE UNDER SIDE OF SLEEVE.

Take the measure as above given for lower arm

seye, $7\frac{3}{4}$ inches—bring the amount from D to H. Make a mark—and we will find a space between H and A, of $1\frac{1}{4}$ inch—take one-half, or $\frac{5}{8}$ inch, and mark this in from D to G, which we make the point for front line of under side—now apply the measure, $7\frac{3}{4}$ inches, again from G to H, and draw front and back line for undersleeve by these points—take the distance from B to C, deduct one seam, and bring the amount in front below B line, and square across for bottom line of under side. Having this, then shape from H to I, to bottom line, to G, making B line the length of under side, as shown in Diagram E.


DIAGRAM F.

This Diagram shows how to change the Front seam of Sleeve.

The drafting is in the same manner as in Diagram E, and when drafted, then mark out from D, the amount which you decide upon the sleeve seam shall come below Q on front part, (say $1\frac{1}{2}$ inch), bring the same amount out from L, and draw a line down by these marks, as shown in

Diagram F. Now, whatever the amount may be which we have marked out from D and L, bring the same amount in from G and L, and draw your line for underside by these points.

But when the seam is placed outside of D and L, be careful and have the goods stretched, on the outside of D L, so that it will lay over smoothly on upper sleeve.

 The Cutter will remember, that we have given two measurements, in the Explanation of Measurement, by which we may obtain the sleeve length. The first measure is as we have applied in the draft of Diagram E. The second measure, as we have stated in the measurement of sleeve, is from centre of back to elbow, and then to the hand, or full length of sleeve.

Now, those who wish to adopt this plan apply the measure as follows: Measure the width of back, from P to N, or C' line—bring the amount on A, top of sleeve; and from A, extend the tape to N, to M, full length of measure, and allow $\frac{1}{2}$ inch more for seams. All the rest is as shown in Diagrams E and F.

A few Remarks on Sleeve Cutting.

No doubt the majority of Cutters will agree on *one point* when we say, that a good-fitting sleeve is the ornament to a well-fitting coat. Yes, more than this, we may say without hesitation, it is the finishing touch of *beauty* and *elegance* to the garment; while, on the other hand, a well-fitting coat body containing a bad-fitting sleeve is an eye-sore to the intelligent Cutter.

But while the majority of Cutters agree on this very important point, it is nevertheless a well known fact that the sleeve does not receive the attention of many Cutters which it ought to have and should have.

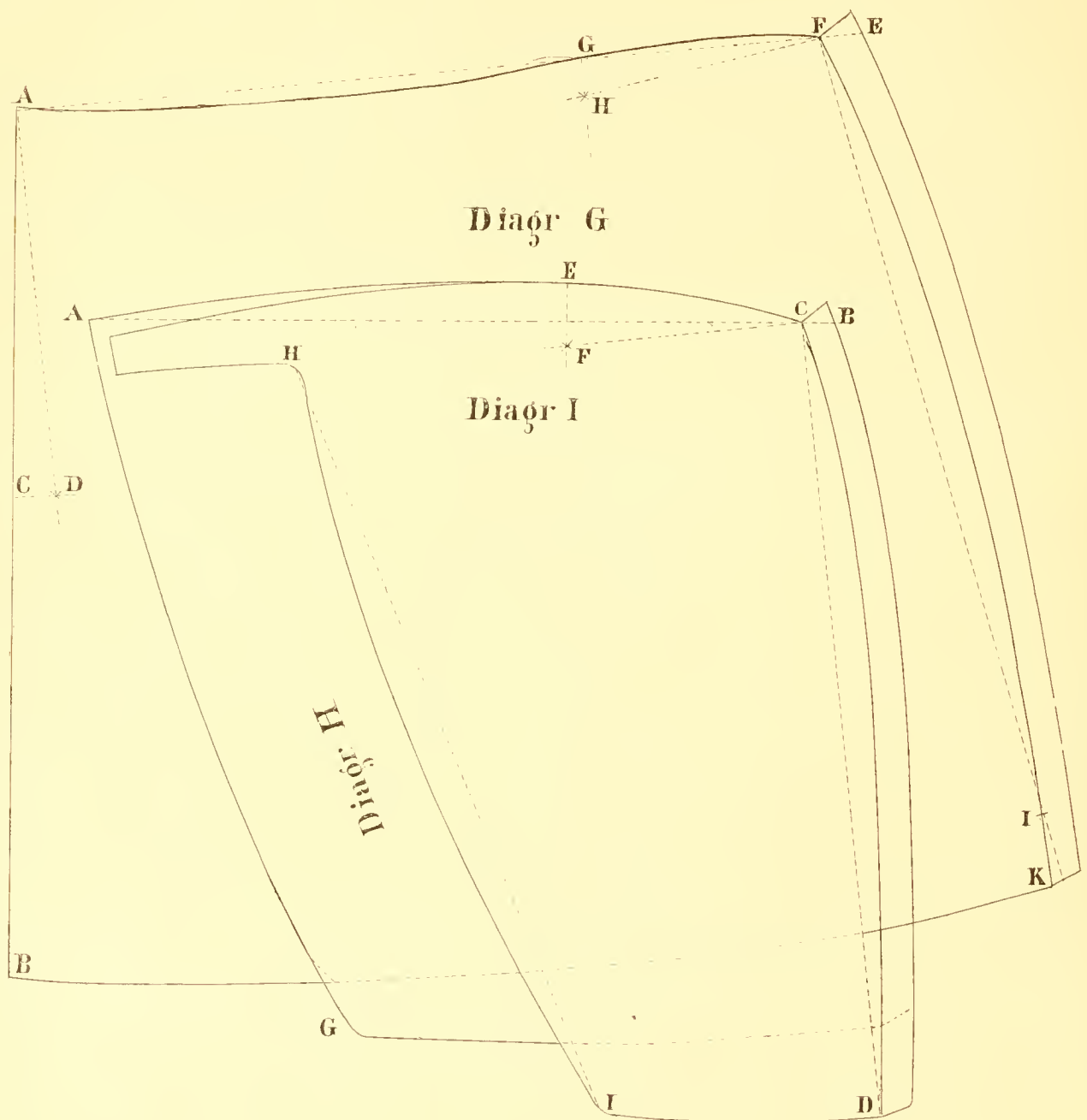
Now some may say, Why should this be so, and what reason have you for this? We answer, because it is simply for this reason: that some Cutters look upon the sleeve as a matter of trifle and insignificance. Yes, some have formed an idea that almost anything in the shape of a sleeve will do, so long as it has the right length, and width of arm seye.

But this is the greatest error any Cutter can ever make—and no doubt some of this class of Cutters have already paid very dearly for it.

It is a well known fact, that Cutters in general make the coat body their principal study, especially if they have the misfortune of using a system which gives too much cloth in one place, or wrinkling to another—in all such cases they will

try very hard to remedy the evil and avoid the bad consequences. But very few of them will give their study and attention to the sleeve, or even let the thought enter their mind that the sleeve might have something to do with the fullness and wrinkling of the coat body. Nevertheless, it is true that in the majority of cases where the cutter finds this trouble, the sleeve is the very thing that produces it.

Now, to prove our point and argument, we take for instance, the cutter who has taken up the fashion of trying on the garment before it is finished, (which we must pronounce a very poor policy). He fits on the coat without the sleeve, then according to his theory the sleeve will fit, if only the coat body will. We suppose now that he is so fortunate as to find the coat body all right, it fits neatly around the arm seye, side body, and waist—shoulders are nice and square—and it is pronounced perfect fitting. The coat is then finished, and when tried on again, lo! what a change there is in the coat which the artist has pronounced perfect fitting. The shoulders, which were so nice and square before, hang down now flat as a leaf the side body which were nice and smooth before, has now a surplus amount of loose cloth extending across the back. The arm seye in front, which was smooth before, he finds now a big wrinkle. Now then, Mr. Ar-



tist, what is the cause of all these changes? And the answer will be, it is spoiled by the journeyman tailor. Now, we admit that the journeyman may have done his share, in not sewing in the sleeve as it ought to be—but still, there must be some other cause that has brought all these changes—and this cause, we say is the sleeve, which does not fit in the arm scye. The sleeve head is too short, and drags the shoulder down and produces the fullness and wrinkling under the arm. And if the Cutter has any doubt that this be the case when caught in this dilemma, just rip out the top sleeve, from back to front seam, and this will show you that the shoulder will raise up in the same position as they were when fitted on first, and by this, all the loose cloth will be taken away—and furthermore, it

will show you the amount which the sleeve head has to be lengthened to fit in the arm scye—and by so doing it will prove that the coat body is all right, but the sleeve is not.

Now I claim that my Sleeve System which is herein given and explained will produce a well fitting sleeve every time, providing the measures are taken correct, and the drafting is made according to the instruction therein given. It will fit the arm scye without dragging on the shoulder. It will produce the sleeve according to the form or hang of arm. And furthermore, I claim that it is the most simple and time saving system on sleeve cutting in existence; any cutter of common talent can draft out a good fitting sleeve in less than one minute.

THE SKIRT SYSTEM. PLATE VII.

The Skirt is also a very important part of the coat, which, when in good shape and in good hanging position, will add beauty and elegance to the garment. It is therefore more worthy of study than it generally receives.

My Skirt System has the most reliable points

by which, if located according to the plan as herein shown, will give in all cases, the correct spring in back of plait. It is simple in the way of drafting, and reliable in all its various points—because the most of these points are taken from the body and applied to the draft.

Diagram G.

SHOWING THE SKIRT FOR A DOUBLE-BREASTED FROCK COAT.

Draw a line in front, as from A to B—A to C 9 inches in all cases. Square in from C to D. Now to locate point D: we must say, this point is governed by the fashion, and should be made accordingly, if the Skirts are worn very full, the amount must be more, and so *vice versa*.

For a medium full skirt, we mark in from C to D, one inch in all sizes.

Bring angle of square on A, let short arm rest on D, and draw a line on top, as from A to E. Now measure the bottom of front, side body and lapel, add 1 inch more for fullness, and bring the amount from A to F. Having this, then shape the top of skirt as shown by dark line, and as near as possible to the form of front part, as shown in Diagram A. Next measure the width of side body at bottom, bring the amount from F to G—square down to H.

Now to find * H, we must place the square on side body, as shown in Diagram A, as follows: bring angle of square on lower point of side body as to 6, let arm rest on edge of side seam at A

line, as at 5, and in that position draw a line from 6 to 10; then, whatever the space may be between 9 and 10, (say $1\frac{1}{4}$ inch in this case,) bring the amount from dark line (or actual waist line of skirt) from G to H, and make a *; and we have the point which will give the correct spring in back of skirt.

Bring the angle of square on point F, let arm rest on * H, and draw a line from F to K. Mark down from F to I, one-half breast, 18 inches in this case.

Now place the side body in a joining position with top of skirt, as from F to G, and draw a curved line in harmony with side body from F through I to K,—also draw a corresponding line for the plait.

Having this, then finish the bottom line—measure from F to K, length of back skirt, and allow $\frac{1}{2}$ inch more—in centre of skirt mark $\frac{3}{4}$ inch more than back skirt, and in front as from A to B, length of back skirt, and finish the bottom by these points as shown in Diagram G.

Diagram H.

SHOWING THE DRAFT OF SKIRT FOR A CUTAWAY FROCK COAT.

Draw line from A to B—bring the width of front and side body at waist seam, from A to C—next draw top line as shown in Diagr. or to fancy. Mark width of side body from C to E—square by A B line from E to F, and extend the line up to top of waist line. Now bring the square on side body as before stated, and as shown in Diagram A. Measure from 9 to 10, (say $1\frac{1}{4}$ inches in this case) and apply this from top line of skirt to * F. Having this, then place the angle of square on C,

let arm rest on * F, and draw a line from C to D—bring the side body on top of skirt as before stated, and draw a curved line from C down—also draw a corresponding line for the plait. Mark length of back skirt from C to D—also in front. Now bring the front part in a joining position with top of skirt, and shape the front of skirt down to G. Next draw the bottom line from D to G, and finish the whole as shown in Diagram H, and according to fancy or fashion.

Diagram I.

SHOWING THE DRAFT OF A DRESS COAT SKIRT.

The Dress Coat Skirt is drafted in the same manner as shown in Diagram H, with only one exception, and this is, draw top line in front one-half inch below A, as shown in Diagram; all the rest is as before stated.

Now when we have all these points, then measure out from C to H, $\frac{2}{3}$ of breast, (more or less), according to fashion. Also from D to I, $\frac{1}{3}$ of breast, or fashion. Next mark width of straps or belts, at H, (say $1\frac{3}{4}$ inches) at A, (say $1\frac{1}{4}$ inch)—Then draw a line from H to I. Having this, then commence and finish the skirt by these points as shown in Diagram, and according to the fashion of the day.

The Draft of Back Skirt.

The Back Skirt we draft direct to the cloth.

Draw a line on edge of the cloth, full length of coat—mark off length of waist—from that point mark $1\frac{3}{4}$ inches to W, (Diagr. A). Now place the back on the cloth, let H rest on edge, and W on $1\frac{3}{4}$ inches. Then extend bottom line of waist to the cloth—let the back remain in its position, and apply the measure for length of coat (say 38 inches—square out—measure out on waist line, from edge of cloth to inside seam of back, and

whatever the amount may be, bring this out on bottom of skirt.

Having this point, then draw a gentle curved line from inside line of back to mark made at bottom—also for plait of skirt—and finish the rest according to fashion or fancy.

The Draft of Collar.

The Collar, as shown in Diagram D, is drafted as follows: Bring the ruler on front shoulder point; let it rest on point to which the coat shall roll in front, and draw a line from O down, as shown by dotted lines—then bring the width of back from shoulder point to 3. From O line mark down to 3, (say $\frac{5}{8}$ inch), and draw a line from this mark to the shoulder point for crease of collar—by this line square up to 2, and also to 1. Mark standing collar, as from 3 to 1, $1\frac{1}{4}$ inches—from 3 to 2, (say $1\frac{1}{2}$ inches), or fashion, and shape the rest as shown in Diagram, and according to the fashion of the day.

Collars which are intended for a short roll, as in the single breasted coat, Diagram C,—the point from O to 3 may be made one inch, and draw line for crease of collar by it. But if so, then have top and bottom stretched from centre seam to front of crease so it will lay over smoothly.

THE DRAFT OF BODY SACK.

PLATE VIII.

Sack Coats are drafted on the same plan as frock coats. The measurement is the same, and all the construction lines also. The only change which we must make in Sack Coats is in the division of the amount from E to B.

In Frock Coats we measure from E to B, and divide the amount in six equal parts and apply one part from B to F. In Sack Coats, however, we must divide the distance, E to B, in four equal

parts, and apply one part (or $\frac{1}{4}$ th) from B to F.

The reason for doing so is simply this: Sack Coats need a longer back on top, and the one-fourth provides for this; otherwise it is the same as shown in Frock Coats—and if the drafting is carried out according to the instructions as herein given, a neat-fitting garment will be produced, which will give satisfaction to both customer and Cutter.

The Measurement.

The measures which we use in the explanation of this draft are the same as in Diagram A, with the exception of length of coat, as follows :

6 $\frac{1}{4}$ inches	Point of shoulder measure.
30 "	Length of coat.
19 $\frac{1}{2}$ "	Back balance.
20 $\frac{1}{2}$ "	Front balance.
31 $\frac{1}{2}$ "	Sleeve length.
26 $\frac{1}{2}$ "	Arm depth.
23 $\frac{1}{2}$ "	Shoulder measure.
7 $\frac{1}{2}$ "	Back waist.
31 "	Shoulder Regulator.
36 "	Breast measure.
32 "	Waist measure.

DIAGRAM J.

Draw a line from O to W. Square out from A to Y. (Notice front and back balance same as in frock.) A to B, one-half of shoulder measure, 11 $\frac{3}{4}$ inches—square up from B—B to D, front balance—square out from D to K—A to E—back waist measure.

Then measure from E to B ; divide this in four parts, and bring one part (or one-fourth) from B to F—F to H, back balance 19 $\frac{1}{2}$ inches,—square out from H to I—D to K, one-fourth of A and B, 2 $\frac{7}{8}$ inches ; from K to 3, one-half of arm depth 13 $\frac{1}{4}$ inches, make a sweep ; then the same amount from H to 3, and make a sweep also. Square out from L through sweep lines to front at V. Next bring one-third of A and B, from B line to J—J to C, $\frac{3}{4}$ inch in all cases. Square up from C to S—take one-half of B and C, add one seam, and bring this from H to I, 2 $\frac{3}{8}$ inches ; then the same amount from D to G—square out to U—place the ruler on crossing of B, L, H, and mark for N—square out from P through N, to M ; draw a line from M to K.

The next point we now establish is the width of back, or shoulder seam, as at 2. Now here I must say, this is a matter of fancy, where most of Cutters follow their own taste, and which the fashion will change also. Therefore I will give a guide only, which I find in general practice, brings this point about right. Measure the distance from L to P lines, and apply one-half from N or P line, to 2, and square out. Mark out on this line pitch of back, (say $\frac{3}{4}$ inch, more or less). Having this, then apply the measure for length of coat, from H to W ; square out from W to front. Next decide on point 1, or in other words, where you wish to locate the side line of back ; make a mark. Also mark width of back at bottom, as from W to X, to fancy, (say 6 inches) ; having these points, then draw a line from 1 to X, for side seam of back, according to fancy or fashion. Mark in from A to 4, hollow of back, (say $\frac{3}{4}$ inch, more or less), and draw centre of back from P, through 4 to bottom.

Now shape the back from H to I, from I to 2, from 2 to 1, as shown in Diagram, and according to fancy or fashion.

Having this, then take one-third of B and C, and mark this out from B to R, and apply

The Shoulder Regulator.

Measure from R, to top of shoulder seam of back at line C, bring the amount on R, and mark off full measure, 31 inches, to S, in the same manner as in diagram A. Sweep out from S by R. Having this, then cut the back out.

Bring the back on top of front shoulder, and finish the shoulder on front part, and upper arm scye as shown in Diagram B. Next, bring the back on side seam as at 1, fasten it with a pin. Now apply the shoulder measure from K to Q, then around the front arm scye to centre of back, 6 $\frac{1}{4}$ inches below H, and allow $\frac{3}{8}$ inch for seams, as shown in Diagram B.

Then draw a line from 1 to L,—mark from 5 to 6 the amount which you intend to take out between back and front. Now this as the practical Cutter does know, depends entirely on the shape which we like to produce. If the coat shall fit close in back the amount must be more, and if it shall be more in a straight form the amount must be less. For a medium close fitting body Sack, take one-fourth of E to B, in this case one inch. Having this, then shape the lower arm scye by the back, from 1 to 3, and draw side line of front from 1 through 6 to X as shown in Diagram. But here we must caution the Cutter: do not bring the point of side body below line 1, or point of side line on back, otherwise the back will be shortened on top. Always leave space for one seam between arm scye and side line at this point.

Now as we have finished all these points, then apply the Breast Measure, as in Diagram B, from L to T—square up to U—from T to V 2 $\frac{1}{2}$ inches, make a mark. Next bring the Back Waist measure 7 $\frac{1}{2}$ inches, on B, and mark out one-half of waist measure, 16 inches to Y.

Next place the ruler on U and Y and draw a line to Z, which we make the point for collar. Then mark from U to Z one-sixth of breast and $\frac{1}{2}$ inch more—bring one-half of the amount from G to Z 2 and draw a line out.

Mark out from V. (say 1 inch, more or less,) according to the style of front—then shape the neck, and draw a line down in front according to fancy or fashion, and finish all the rest as shown in Diagram.

Next mark Q, one-fourth of L and M—measure upper and lower arm scye ; also from K to Q, as shown in frock coat, and draft the sleeve by these measures as in Diagr. E, and the draft is finished.

DOUBLE AND SINGLE-BREASTED SACK OVER COATS.

PLATE IX.

The Sack Overcoat.

Sack OverCoats, as shown in this Diagram, are drafted in the same manner as body sacks, and as shown in Diagram J, with only one exception.

By looking over the Diagram we find all the points and letters as in Body Sack. But after all, there is one point to which your attention must be drawn, and this is from X to 7.

In Body Sacks we draw the side line of front part to X, or back.

The Over Coat, however, needs more fullness at bottom, and therefore we must change this point according to the length of coat, and also according to the fullness which the fashion may call for.

In regard to the measurement of Sack and Frock Over Coats: The measures should be taken over the under or body coat, in the same manner as we have explained in the measurement over the vest. By taking the measurement over the undercoat we will have the exact amount to draft from, without making any allowances whatever, except in those places where we allow for seams and making up. I find this the easiest and surest way of measuring and drafting the Over Coats.

The Measurement.

We suppose, as follows:

6 $\frac{3}{4}$	inches	Point of shoulder measure.
42	"	Length of Coat.
20	"	Back balance.
21	"	Front balance.
32	"	Sleeve length.
28	"	Arm depth.
24 $\frac{3}{4}$	"	Shoulder measure.
8	"	Back waist measure.
32	"	Shoulder Regulator measure.
38	"	Breast measure.
33 $\frac{1}{2}$	"	Waist

DIAGRAM K.

Draw a line from O to W—square out from A to Y. (Notice front and back balance.) Now bring one-half of shoulder measure, 12 $\frac{3}{4}$ inches, from A to B—square up from B—B to D, front balance—A to E, back waist—B to F, one-fourth of E and B—F to H, back balance—D to K, one-fourth of A and B—K to 3, one-half arm depth, make a sweep—H to 3, same amount make a sweep also. Square out from L, through sweep to front—B line to J, one-third of A and B—J to C, $\frac{3}{4}$ inch. Square up from C to S; mark N by H, and L B

line—square out from P, through N to M—draw a line from K to M—N to 2, (say one-half of L and P), more or less—H to I, one-half of B and C, and one seam—D to G, same amount—square out to U—H to W, length of coat—square out to front—A to 4, (say $\frac{3}{4}$ inch,)—W to X, width of back, (say 6 $\frac{1}{2}$ inches, more or less)—line 1, to fashion or fancy. Now finish the back, from H to I, from I to 2—from 2 to 1, and from 1 through 5 to X—then finish the centre of back as shown in Diagram, and according to fashion.

Bring one-third of B and C, from B to R. Then apply

The Shoulder Regulator.

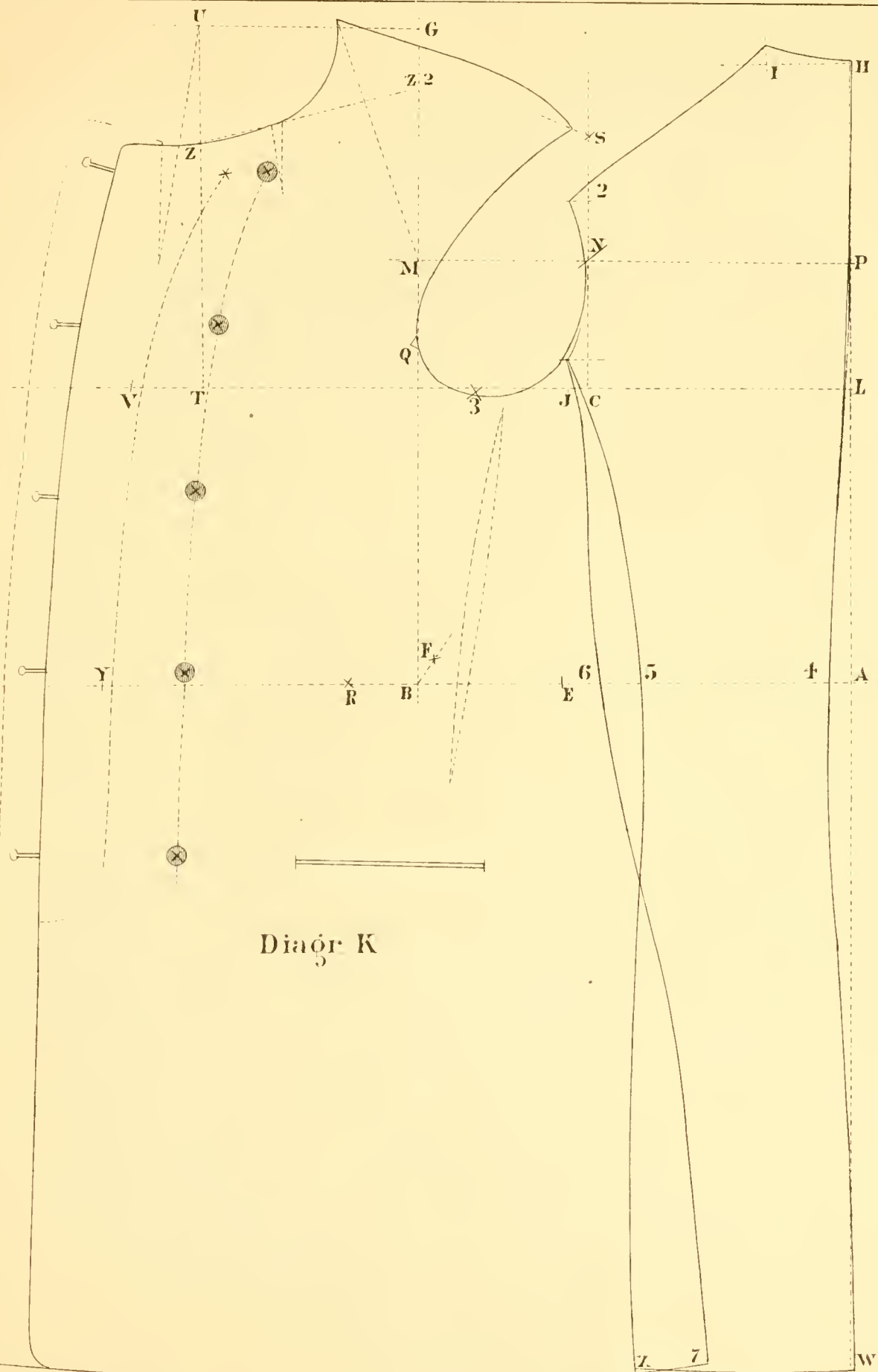
Measure from R to top of Back Shoulder at line C, bring the amount on R, and mark up to S full length of measure, 32 inches, and make a sweep from S out, same as in Diagram A. Now cut the back out. Bring the back on top of front shoulder and finish the same as in Diagram B.—draw a line for upper arm scye to Q to 3. Then bring the back to side seam let line 1, meet, fasten the back with a pin—apply the shoulder measure from K to Q, then around the arm scye to 3, then to centre seam of back 6 $\frac{3}{4}$ inch below H, and allow $\frac{3}{4}$ inch for seams—draw a line from 1, to line L, mark from 5 to 6, (say one-fourth of E and B, more or less). Now mark spring at bottom, as from X to 7—(say 2 $\frac{1}{2}$ inches). Then draw the side seam of front from 1 to L through 6 to 7 as shown in Diagram—shape the lower arm scye as in Diagram J.

Next apply the breast measure, from L to T, as before shown. Square up from T to U—T to V, 2 $\frac{1}{2}$ inches—mark from U to Z, one-sixth of breast, and $\frac{1}{2}$ inch more—one-half the amount from G to Z 2, and draw line out.

Next, apply the waist measure. Bring back waist on B, and mark out waist measure, and 1 inch more to Y. Bring the ruler on U and Y, and draw a line to Z, which we make the point for collar. Now mark out from V, for a Single-Breasted Coat (say 1 $\frac{1}{4}$ inches), the same amount from Y. Having this, then shape the neck to Z from Z, shape the lapel according to the fashion of the day, and from this point draw the front line through mark at V, and Y, to bottom. Also shape the bottom line, and all the rest as shown in Diagram K.

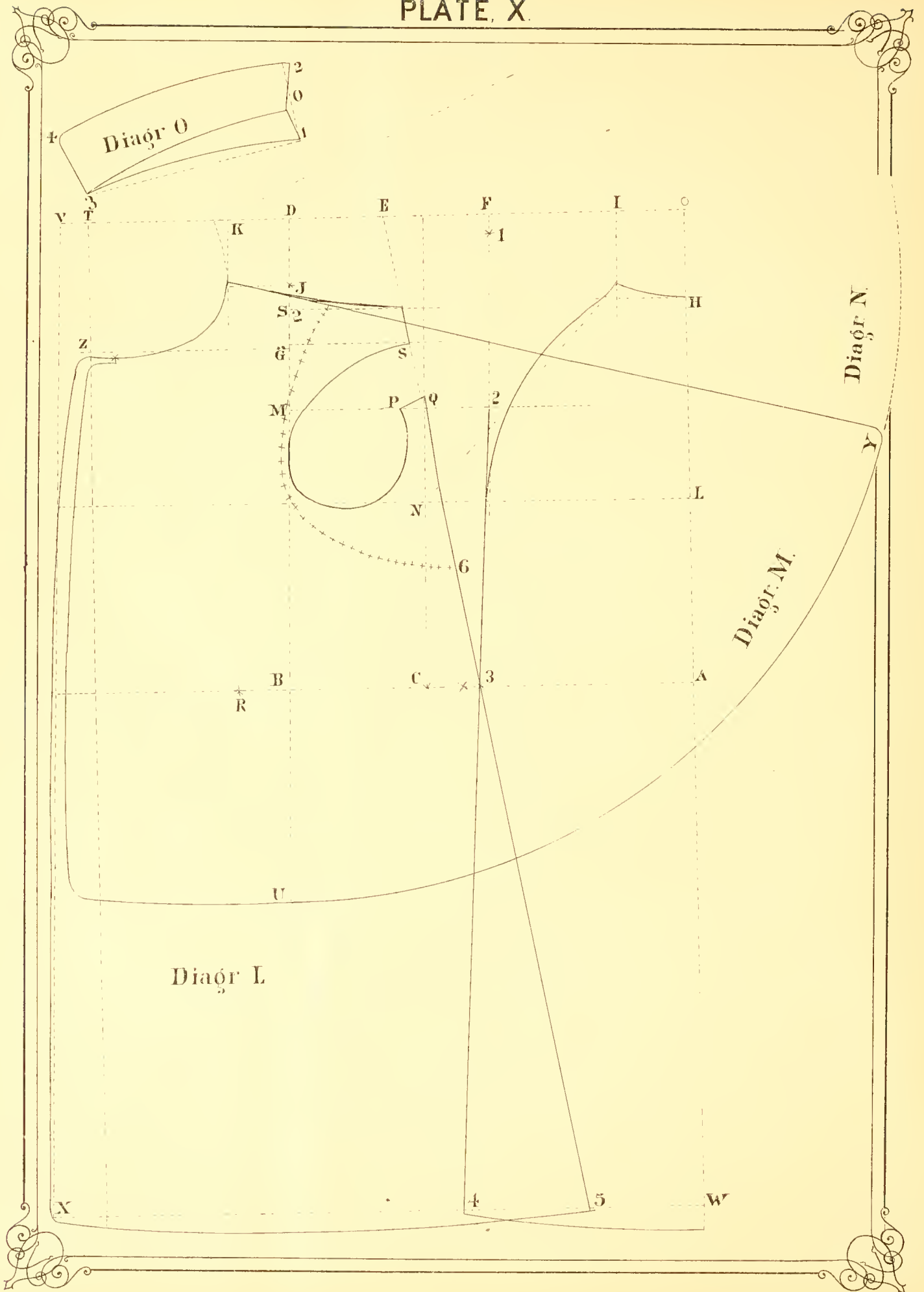
This Diagram also shows the Double-Breasted

PLATE, IX.



Diagr K

PLATE X.



Coat. Mark out from V, to front, (say 3 inches, more or less), the same amount from Y, to front, and draw the front line by these marks. Then measure in from V, $\frac{1}{2}$ inch less than we have marked outside, also the same amount from Y, in, and draw a line for the Buttons.

The Frock Overcoat.

This style of coats is drafted in the same manner

as shown in Diagrams A, and B, without any change whatever, except the measurement, which should be taken over the body coat.

The one-fourth of E, and B, which we have applied in Diagram K, from B, to F, is in Sack Coats only. Bear this in mind, and no alteration will be needed.

PLATE X.

SHOWING THE DRAFT OF THE **INVERNESS CAPE**, WITH OR WITHOUT SLEEVES.

AND ALSO

HOW TO PRODUCE THE **THREE-QUARTER CIRCLE OR CAPE**.

This style of Over Coats, known as the Inverness Cape, have been in demand for quite a number of years, and although the fashion has drawn the garment out of style, it is still worn by some, and will be so for some time to come, because it is the most comfortable garment for traveling purposes ever gotten up.

Now this style of Over Coats are generally drafted by graduated scales, and the result, no doubt, some have experienced. We find that all patterns drafted by scales will be above 38 breast, a number of sizes too large for the breast for which they are intended. The only way to overcome the difficulty is to draft out the pattern by actual measurement, and in the same manner as we do in FROCK AND SACK COATS.

The Measurement.

This is the same as in frock and sack coats, and should be taken over the under coat, except breast and waist, which should be taken over the vest in this style of coats.

We suppose now that the measures are as follows:

44	Inches	Length of Coat.
20	"	Back balance.
21	"	Front "
32	"	Sleeve length.
31	"	Cape "
28	"	Arm depth measure.
24	"	Shoulder "
31 $\frac{1}{2}$	"	Shoulder Regulator measure.
18	"	Neck measure.
36	"	Breast "
33	"	Waist "

The Draft of Diagram L.

Draw a line in centre of back as from O to W—square out from O to V—from O to A, front balance, 21 inches—square out from A to front line—now from A to C, one-half of shoulder measure, 12 inches, square C, line up to top—from C to B, one-half of A and C, six inches—square B line up to D. The distance which we now have from A, to B, is 18 inches.

Now take one-fourth of A and C, or 3 inches^s and apply this, from O to I—then from D to J—also from D to K. Square these lines as shown in Diagram. Then mark from J to G, one-sixth of breast, which is the same amount, in this case, as from D to J, 3 inches—square out to Z. Having this, then mark F, in centre of O and D—square F line down—then E, in centre of D and F, and make a mark.

Now bring the tape measure on B, and mark the back balance, 20 inches, up to * 1 at F line.

Next apply the Arm-depth Measure—take one-half of the measure, 14 inches, and apply this from K, down to centre of B and C lines, and make a sweep—then apply the same amount from * 1 at F line to centre of B and C, and make a sweep also, as shown in Frock Coat Diagram A.

Now bring the square on centre line of back and draw a line out from L, through sweep lines to front—mark M, one-fourth of breast (or 4 $\frac{1}{2}$ inches in this case) from line L, and square in to 2.

Having this, then measure the space between C and F lines and mark * in centre at A line, (1 $\frac{1}{2}$ inches from C,)—place the tape on this * and mark up back balance, 20 inches, to H, and we have the correct length of Back.

Now square out from H, to I—from this line mark up on I, $\frac{3}{4}$ inch, for spring of back—place the ruler on mark made by $\frac{3}{4}$ inch, and draw a line down to N—then apply the measure for full length of coat—bring the tape on H, let it run down on centre line and mark off 44 inches—from this mark up to W, one inch, and square out to X.

Having this, then bring the ruler on E, let it rest on the crossing of C M lines, and draw a line down to bottom of coat, as at 5. Now bring the ruler on 2, let it rest on crossing of A, and E, lines, as at 3, and draw a line from 2, to 4. Then shape the back from H to I, from I to 2, as shown in Diagram—place the tape on I, at top line, let it run to bottom of back, and make a sweep from W,

to 4. Next bring the tape on D, and make a sweep from 5 to X, for bottom of front. Mark in from Q to P, $1\frac{1}{2}$ inch, make a mark—now measure from B to C, and bring one-third of the amount, two inches, from B to R, and apply

The Shoulder Regulator.

Bring the tape on R, let it run up to P, in a straight line, bring the amount on R again, and measure up to S, at E line, full measure, $31\frac{1}{2}$ inches—square S line out by line B—from S to S 2, mark the same amount as from Q to P, $1\frac{1}{2}$ inches, and square this line in. Mark up from line M to Q, $\frac{1}{2}$ inch, and draw a line to P. Having this, then finish the front part—measure out from O on top line, one-half of breast, 18 inches—from this point, mark out to T, one-fourth of breast, 9 inches, and square this line down to bottom. Now mark from T to V, $1\frac{1}{4}$ inch—T to X, at bottom 2 inches in all cases and sizes—place the ruler on V and X, and draw a line from top to bottom.

Next we commence and shape the front—from S 2 at E line we draw a gentle curved line for top of front shoulder to K line, as shown in Diagram—*from crossing of J and K, draw a line for neck gorge out to Z.* Then shape the arm scye, from S, at E line to M, to L, and up to P. Having this, then mark in from front line $\frac{3}{4}$ inch to Z, and also the same amount in from T, which we make the point for collar. Now shape the front by Z, and all the rest as shown in Diagram L, and cut the pattern out—but be careful, and notch front and back at A line as at 3, which point must meet when the coat is joined. Now this completes the coat with sleeves.

Diagram L

Showing the same Draft, without Sleeves.

Draft the pattern as before shown with sleeves, and when drafted, then mark down from L line to 6, one-sixth of breast, 3 inches—mark centre of B and E line, at shoulder seam, and draw a line down to 6, as shown by + lines in Diagram. All the rest is as before stated.

Diagram M.

Showing How to Draft the Cape for the Inverness Cape Coat.

Place the front part of coat on the pattern paper, and draw neck and front by the coat. Bring the ruler on crossing of J, K, lines, let it rest in centre of S, S 2, at C line, and draw a line to Y. Next, bring the tape on K, measure down to U, full length of Cape, 31 inches—now place the tape measure on J, make this point a pivot, and sweep from U to Y, and draw a corresponding line from U, to front, by a curved ruler, and finish all the rest as shown in Diagram.

Diagram N.

Showing the Draft of the so-called "Three-Quarter Circle or Cape."

This style of garments is worn by military men, and also by others, over Frock and Sack Coats.

The Draft.

Draw a line from D to B—square out from D, to K,—mark from D to K, one-sixth of breast, 3 inches, and draw line down; now take the pattern of the coat, for which the Cape is intended, place the back on top line, as at K—then bring the front part to back, so that shoulder seam of coat will rest in a closing position, front shoulder point resting on K line, back at top line—B, D, line of coat running parallel with B, D, line of cape, and in that position draw a line in centre of back by the pattern, as from K to Y 2. Shape the neck by the pattern as from K, to Z—and also from Z, down in front. Having this, then take the pattern off—mark down from D to J, 3 inches in all cases, and make this point a pivot. Next mark length of cape from K, to U, (say 31 inches). Bring the tape on point J, or pivot, and sweep from U, to Y 2, or centre of back, as shown in Diagram. Now draw a corresponding line from U to front, as in Inverness Cape, and cut the pattern out.

Diagram O.

Showing the Draft of Collar.

Draw a line from 1, to 3,—square up from 1, to 2,—mark up from 1, to O, $1\frac{1}{2}$ inches, and from O, to 2, (say 2 inches). Now measure the neck of coat, 9 inches—bring 9 inches from 1, to 3,—mark width of Collar from 3, to 4, (say $2\frac{3}{4}$ inches) more or less—mark up in centre of 1, and 3 (say 1 inch)—then commence and shape the Collar from 1, to mark by 1 inch, to 3—from O, to 3—and from 2 to 4, as shown in Diagram.

Drafting the Sleeve.

Measure the arm scye—bring $\frac{3}{4}$ inch more than $\frac{1}{2}$ of arm scye measure from S, E, line down below M, and make this the point for front sleeve seam, (as at Q, Diagram A). Also measure from K, to this mark, same as in frock or sack—note the measures down, and draft the Sleeve in the same manner as in frock or sack coats, as shown in Diagram E, with only one exception, and this is:—Measure the distance from M, to point of front Sleeve seam, on front part, and whatever the amount may be, apply this in the draft of Sleeve, as from A, to B, Diagram E.

THE PATTERN SYSTEM.

The System, as herein laid down, will be found the most simple and reliable method of drafting patterns for the Ready-made Trade ever gotten up and presented to the trade. The difficulty generally experienced by the Breast Measure System, whereby all sizes above 38 breast will be too large, and below 35 too small for the intended breast, is herein overcome.

The principle on which the pattern system is based as laid down in the Actual Measurement, and the drafting is also illustrated by the same Diagrams as therein given and explained.

In the annexed

"Cutting Table of Proportions"

will be found the principal measures for each size of breast, which we have to apply for the various points of Diagrams. The arrangement of figures in this Table are very simple, so that any Cutter can use it at once. The first line of figures give the breast from 24 to 48; the second line of figures the distance from A to B; the third line the distance from B to D; the fourth line of figures the distance from D to L, or bottom of arm scye; the fifth and sixth lines, the length of sleeve for each size of breast: and will be fully illustrated in the next draft.

Diagram A.

SHOWING DRAFT OF A 36 SIZE FROCK PATTERN.

Draw line from O to O—square from A to Y. Now apply the measures as given in the Cutting Table, opposite figure 18, or Breast measure, as follows: From A to B, 12 inches, square up to D—B to D, $20\frac{1}{2}$ inches, and square out to K—D to L (or bottom of arm scye), $12\frac{1}{4}$ inches—square from L, through mark to V, in front, and we have the principal lines for the pattern.

Now mark from D to K, one-fourth of A and B, 3 inches—measure from B to K, $20\frac{3}{4}$ inches, and bring this from B to H, for length of Back. Mark from B line to J, one-third of A and B, 4 inches—J to C, $\frac{3}{4}$ inch in all sizes—square up from C to G—apply one-half of B and C ($2\frac{3}{8}$ inches), from H to I, also from D to G, and square out to U—place the ruler on crossing of L and B lines, let it rest on H, and mark for N. Square out from P, through N to M—draw a line from M to K—mark width of back as from 1 and 2—from A to W, one-eighth of A and H (more or less, according to fashion)—square out from W to X—mark width of back from A to 4—bring $\frac{3}{4}$ inch above I, for spring of back. Now shape the back, from H to I, from I to 2, from 2 to 1, and from 1 through 4, to bottom, according to fashion or fancy. Having this, then mark up from L on C line, one-fourth of breast ($4\frac{1}{2}$ inches), and from that point one-eighth of breast to S—bring the tape on M, and sweep out from S.

Now, here I must say, that whenever the shoulder seam of back is drawn higher up than $\frac{1}{4}$ th of breast at line C, then deduct the amount from $\frac{1}{4}$

of breast, and bring point S so much farther down—and so *vice versa*. Next bring the tape on point 1, and sweep from bottom line of back out to 6—apply $\frac{1}{4}$ inch less than one-fourth of A and B, ($2\frac{3}{8}$ inches), from 4 to 5—mark $\frac{3}{8}$ inch in all sizes between back and side body, at line L. Having this, then cut the back out and finish the side body by these points, 5 and $\frac{3}{8}$ inches, in the same manner as shown in actual measurement, Diagram B. Then draw a line for width of side body, as from line L, to 7 to 9,—mark $\frac{1}{2}$ inch in all sizes from 7 to 8, and shape side line of front, through 8 to bottom. Now finish the bottom line of side body as shown in actual measurement,—also the front shoulder and arm scye, as before shown in Diagram B. Mark Q one-fourth of L and P, from line L, up—apply the breast measure from L to T—square up to U—T to V, $2\frac{1}{2}$ inches in all sizes—square down from V to bottom—mark $\frac{1}{2}$ inch out from this line to Y—U to Z, one-sixth of breast and $\frac{1}{2}$ inch more—G to Z 2 one-half the amount. Having this, then finish the whole as shown in actual measurement in Diagrams A and B.

Then measure upper and lower arm scye as before shown, and draft the sleeve by these measures as in Diagr. E and F. Apply the measures as given in the "Cutting Table," from centre of back to elbow, 20 inches, to O, or full length of sleeve, $32\frac{1}{2}$ inches—allow $\frac{1}{2}$ inch for seams; and square by L and I for bottom.

Diagram J.

SHOWING THE DRAFT OF SACK-COAT PATTERNS.

In giving the necessary instruction for the draft of sack coats, we will take the 40-inch breast, and by so doing we show the working of the Cutting Table more fully.

The Draft.

Draw line from O to W—square out from A to Y—from A to B, $13\frac{1}{2}$ inches—square up to D—from B to D, $21\frac{3}{4}$ inches—from D to L, $13\frac{1}{4}$ inches—square out from L through mark to V in front—D to K, one-fourth of A and B, $3\frac{1}{4}$ inches. Now measure from B to K, (22 inches), add $\frac{3}{8}$ inch in all sizes of Sack coats, and bring the full amount ($22\frac{3}{8}$ inches in this case), from B to H—square out to I—from B to J, one-third of A and B, ($4\frac{5}{8}$ inches). J to C, $\frac{3}{4}$ inch—square up from C to S. Then take one-half of B and C ($2\frac{1}{2}$ inches), add one seam and apply this from H to I, also from D to G, and square out to U. Now mark N, by H and crossing of L and B—square out from P, through N to M—draw a line from M to K. Next mark width of back or shoulder drop. (See explanation of actual measurement). Take one-half of L and P, (more or less), from N to 2—mark out from 2, for

pitch of back (say $\frac{3}{4}$ inch)—also mark $\frac{3}{4}$ inch for spring of back above I. Now shape the back, from H to I, from I to 2, from 2 to 1. Next mark full length of coat from H to W, (say 32 inches), square out from W to front—mark width of back from W to X, (say $6\frac{3}{4}$ inches). Having this, then shape the side seam of back, from 1 to X, to fancy or fashion.

Next bring one-fourth of breast (5 inches) from L up on line C—from this point one-eighth of breast ($2\frac{1}{2}$ inches), to S.

Now, whatever the shoulder seam of back may be above the mark of $\frac{1}{4}$ the breast, deduct the amount from S, and bring this point so much lower down. Sweep out from S, by M. Apply the breast measure from L to T, square up to U—T to V, $2\frac{1}{2}$ inches—square from V to Y—draw a line by U and Y, to Z—U to Z one-sixth of breast and $\frac{1}{2}$ inch more—G to Z 2, one-half the amount. Now finish the front shoulder, arm seye, and neck, as shown in actual measurement—then shape the front to fashion or fancy. Next mark from 5 to 6 (say $1\frac{1}{4}$ inch), (see actual measurement), and shape the side of front part from 1 through 6, to X, and all the rest as before shown in Diagram J.

Diagram K.

THE DRAFT OF OVER-COATS.

The Drafting in this Diagram is the same as in Diagram J, or body sack, and does not need any further explanation.

The only instructions which are needed we find in the following points:

First: The Over Coat does need a longer back on top, as from L to H, than the Body Sack. The extra allowance which we make in under sack is $\frac{3}{8}$ inch; in over sack we make the allowance, above B and K, $\frac{5}{8}$ inch.

Second: The Over Coat needs more fullness on

bottom, therefore we must make the allowance as shown in actual measurement, from X to 7.

Third: By drafting an Over Coat by the same breast as in Diagram J, 40 inches, we will have a pattern which will fit a man of 38 breast.

This shows that the Over Coat does need two inches more in width than the under coat, to fit the same person. All the rest of drafting is as shown in Diagram J, and as explained in actual measurement.

Diagram L.

THE DRAFT OF INVERNESS CAPE OVERCOAT.

Draw a line from O to W—square out from O to V—now mark (for a 36 breast) from O to A, $20\frac{1}{2}$ inches. Square out from A to front—A to C, 12 inches, square up to top line—C to B, one-half of A and C, 6 inches, square up to D—D to L, $\frac{3}{4}$ inch more in all sizes than the amount given in the "Cutting Table," 13 inches. Now take one-fourth of A and C (3 inches), and bring this from O to I, also from D to J, and from J to G, also from D to K—square all these lines—mark F, in centre of O and D—E, in centre of F and D—D to T, one-half breast (9 inches)—T to V, $1\frac{1}{4}$ inch in all sizes—

mark M, one-fourth of breast from L—square in to 2. Now mark one-third of C and B, (2 inches) from C, out, and make a mark—from this point measure up to K, ($21\frac{3}{4}$ inches), and bring the amount from mark to H, length of back—square out, mark $\frac{3}{4}$ inch above this line for spring of back—from G to S 2, one-third of G, and D. Having all these points, then finish the draft by these points, as shown in actual measurement.

The Cape is drafted in the same manner as before shown, also the Sleeve and Collar, and does not need further explanation.

CUTTING TABLE OF PROPORTIONS
FOR
Drafting Coat and Vest Patterns
FOR THE
READY-MADE TRADE.

One-half Breast Measure.	Distance from A to B.	Distance from B to D.	Distance from D to L.	Length of Sleeve from centre of Back to Elbow.	Full length of Sleeve from centre of Back to O, Diagram E. Square by L and I.
INCHES.	INCHES.	INCHES.	INCHES.	INCHES.	INCHES.
12	$8\frac{1}{2}$	14	$8\frac{5}{8}$	14	$21\frac{3}{4}$
13	$9\frac{1}{8}$	$15\frac{1}{4}$	$9\frac{1}{4}$	15	$23\frac{1}{4}$
14	$9\frac{5}{8}$	$16\frac{1}{2}$	$9\frac{7}{8}$	$15\frac{3}{4}$	25
15	$10\frac{1}{4}$	$17\frac{3}{4}$	$10\frac{1}{2}$	$16\frac{1}{4}$	$26\frac{3}{4}$
16	$10\frac{7}{8}$	$18\frac{7}{8}$	$11\frac{1}{4}$	$17\frac{3}{4}$	29
17	$11\frac{1}{2}$	$19\frac{7}{8}$	$11\frac{7}{8}$	$19\frac{1}{2}$	$31\frac{1}{2}$
18	12	$20\frac{1}{2}$	$12\frac{1}{4}$	20	$32\frac{1}{2}$
19	$12\frac{5}{8}$	$21\frac{1}{8}$	$12\frac{3}{4}$	$20\frac{3}{4}$	$33\frac{1}{2}$
20	$13\frac{1}{8}$	$21\frac{3}{4}$	$13\frac{1}{4}$	$21\frac{1}{4}$	$34\frac{1}{4}$
21	$13\frac{3}{4}$	$22\frac{1}{4}$	$13\frac{3}{4}$	$21\frac{3}{4}$	$34\frac{7}{8}$
22	$14\frac{1}{8}$	$22\frac{7}{8}$	$14\frac{1}{4}$	$22\frac{1}{4}$	$35\frac{3}{8}$
23	$14\frac{5}{8}$	$23\frac{3}{8}$	$14\frac{3}{4}$	$22\frac{5}{8}$	$35\frac{7}{8}$
24	$15\frac{1}{8}$	24	$15\frac{1}{4}$	23	$36\frac{1}{4}$

THE VEST SYSTEM.

The System as herein given, is on the same plan as the Coat System, and will provide for *all the various forms of the human body* which the Cutter may be called on to measure and draft for.

The Measurement is the same as explained in the measurement of Coats—except that we must add length of Collar, full length of Vest in front, and also full length at hip—which will be

fully shown in the measurement below, and also in the draft of Diagram P.

Now, with these few lines of introduction and explanation of measurement, the Author advises all those who intend to study and practice the new principles, to follow out the instructions as herein given, and if you thus do, a trial will be sufficient to show that the System will do all which we have above stated, and you will become a hearty indorser of this valuable System.

PLATE XI.

The Measurement.

The measures, as we have before stated, are taken in the same manner as in Coats, and suppose that they are as follows for a single-breasted Vest:

19½	Inches	Back Balance.
20½	"	Front Balance.
26½	"	Armdepth.
23½	"	Shoulder measure.
7½	"	Back Waist measure.
31	"	Shoulder Regulator.
14	"	Length of Collar.
26½	"	Full length of Vest.
23½	"	Full length at hip.
36	"	Breast.
31	"	Waist.

DIAGRAM P.

The Draft of a Single-Breasted Vest.

Draw line O, to O—square out from A, to Y—now notice front and back balance, same as in Coat. (See Explanation of Shoulder Measure, page 11). Now take one-half of shoulder measure (11½ inches) and bring this from A, to B—from B, to C, one inch in all sizes—square up from C to D—apply front balance from C, to D (20½ inches), and square out to U. Now apply back waist measure from A to E—then measure from E to B, divide this in four parts, and bring one part from A to F, (one inch). Now apply back waist measure again from F to G, and make a mark. Bring the tape measure on G, and apply back balance 19½ inches, with ¼ inch added for seams, from G to H—square out to I. Having this, then take the distance from A to B, divide the amount in four equal parts, and apply one part, (2½ inches,) from H to I—then from D to J—also from D to K. Now apply the arm depth measure, take one-half (13½ inches) and bring this from K to P, make a sweep line—then from H to P, and make a sweep line also. Bring the square on centre line of back, and draw a line from L through sweep at P, to V, in the same manner as Coat Diagram A. Having this line, then mark up from line L to N, one-fourth of A and B—mark ¾ inch up from I, for spring of back—place the ruler on this mark, and point N, and draw shoulder line of back.

The next line we must find is line M: Take one-half of A and B, (5½ inches), and apply this

from line C, to M, and square up—draw a line from L and C to K. Now, having established all these points, we go on and apply

"The Shoulder Regulator."

Place the tape on G, let it run up in a direct line to R, top of back shoulder seam—bring the amount on B, and then up in a direct line to S, full length of measure, 31 inches, and make a mark—place the rule on S, let it rest on crossing of J K lines, and draw a line out.

Having all these points and lines, we then commence and finish the Back. Draw a line from H to L, through F, to bottom, for centre of back—then from H to I, or mark for spring of back—finish the shoulder seam to R—then from R, finish the arm scye to P, or side line of back and front, which line may be drawn to fancy (say centre of M and C)—mark out from G, 1½ inch for seams and ease. Now commence, and draw side line from P, through mark at waist, to Z, at bottom—as shown in Diagram.

Next finish the Front: Bring one-half of breast measure from L to T—from T to V, 2 inches in all cases—square up from T to U, from U draw a line to V, by which line we form the front line of vests which shall button up very high. Having this, then apply the waist measure—bring the back waist measure on B, mark out to Y, one-half of waist, 15½ inches, and allow for one seam in front.

Then apply the measure for length of vest:—take the tape, measure from D to J—place the amount on front shoulder point, and measure to V, length of collar, 14 inches—then to W, full length of vest, 26½ inches, and allow for seams—then to X, length of hip, 23½ inches, and allow for seams also. Having all these points, then shape the front—draw a line from V, through Y, to bottom, also a corresponding line for lap of button side—shape the point for collar, and draw a line for neck, from K line to V. Next draw a line from P, through B, to X—also from X to W—then shape bottom line of back, and cut the back out. Bring the back on top of front shoulder; let point I rest on K J line, and in that position, finish the front arm scye, by the back—then shape the front shoulder from arm scye to K line,—and all the rest as shown in Diagram P, and according to the fashion of the day.

PLATE XII.

DIAGRAM Q.

Showing the different styles of Vest.

In this Diagram we show the draft of the different styles of Vests,—the Single Breasted, to button close up to the neck,—the Double Breasted to button way up,—and also the Double Breasted with long rolling collar.

Diagram Q is drafted in the same manner as shown in Diagram P; and whatever the style may be, which the Cutter may wish to draft, the change must be in front, as from V, Y and W.

We will show these changes by three Diagrams:

DIAGRAM R.

Single Breasted Vest, to button close up to neck.

We suppose now, that we have made the draft as in Diagram P, with the exception that the front line, from V to W, has to be drawn.

Now commence and mark, from D to Q, one-third of breast, 6 inches—square out to Z. Having this, then shape the neck to front line at Z— from this point draw front line to V, to Y, to W and we have the side for the button holes; then draw a line outside for the button side, or lap, as

in Diagram P. Mark in from front line at Z, to point of collar (say $\frac{3}{4}$ inch) and the draft is finished.

DIAGRAM S.

Showing the Draft of the Double Breasted Vest, to button close up to the neck.

This style of Vest is drafted as shown in Diagram R. Draw front line, from Z to W. Now draft the Lapel. Mark on top, (say 2 inches),—at V line (say $2\frac{1}{2}$ inches)—at Y line (say 2 inches, more or less)—and shape the Lapel, as shown in Diagram, according to fashion or fancy.

DIAGRAM T.

Showing the Draft of the Double Breasted Vest, with long rolling Collar.

Mark length of Collar to measure or fancy—mark out from Y (say $2\frac{1}{2}$ inches)—at bottom (say $1\frac{1}{2}$ inch, more or less)—and draw a line by these marks—then draw a line down for neck—finish the bottom to fashion.

Next draw a line for Buttons, $\frac{1}{2}$ inch less than we have marked outside of Y and W, and finish the rest as shown in Diagram.

THE PATTERN SYSTEM.

DIAGRAM P.

SHOWING THE DRAFT OF A 36-SIZE VEST PATTERN.

Draw line O to O—square out from A to Y. (See Cutting Table of Proportions, page 25). Mark from A to B 12 inches—B to C, one inch in all sizes—square up to D—from B to D $20\frac{1}{2}$ inches—square out to U—D to L, $12\frac{1}{4}$ inches—square out from L, through mark to V—apply one-half of A and B, from line C, to M—square up from M. Now mark at waist, from A to F, $\frac{1}{2}$ inch—from F, to G, or side line of Back, one-half breast, 9 inches. From C, measure up to D, ($20\frac{1}{2}$ inches), and bring the amount from G to H, allow one seam above H, and square out to I. Then take one-fourth of A and B, 3 inches, and apply this from H to I—from D to K—D to J—also from line L, to N. Mark up from I, $\frac{3}{4}$ inches for spring of back—place the ruler on this mark, and N, and draw line for shoulder seam of back. Now take one-half of line L, and D, ($6\frac{1}{2}$ inches), add $\frac{1}{2}$ inch in all cases to this $\frac{1}{2}$, and bring it from M to S—place the ruler on L and K, and draw a line up, also from S to K, J, line.

Now apply the breast measure from L to T—from T to V, 2 inches. Square up from T to U—from U draw a line to V. Mark length of front. This of course is regulated by fashion, and must be made accordingly. For a guide, we will say, bring $\frac{1}{3}$ d of breast (6 inches), from Y to W—and

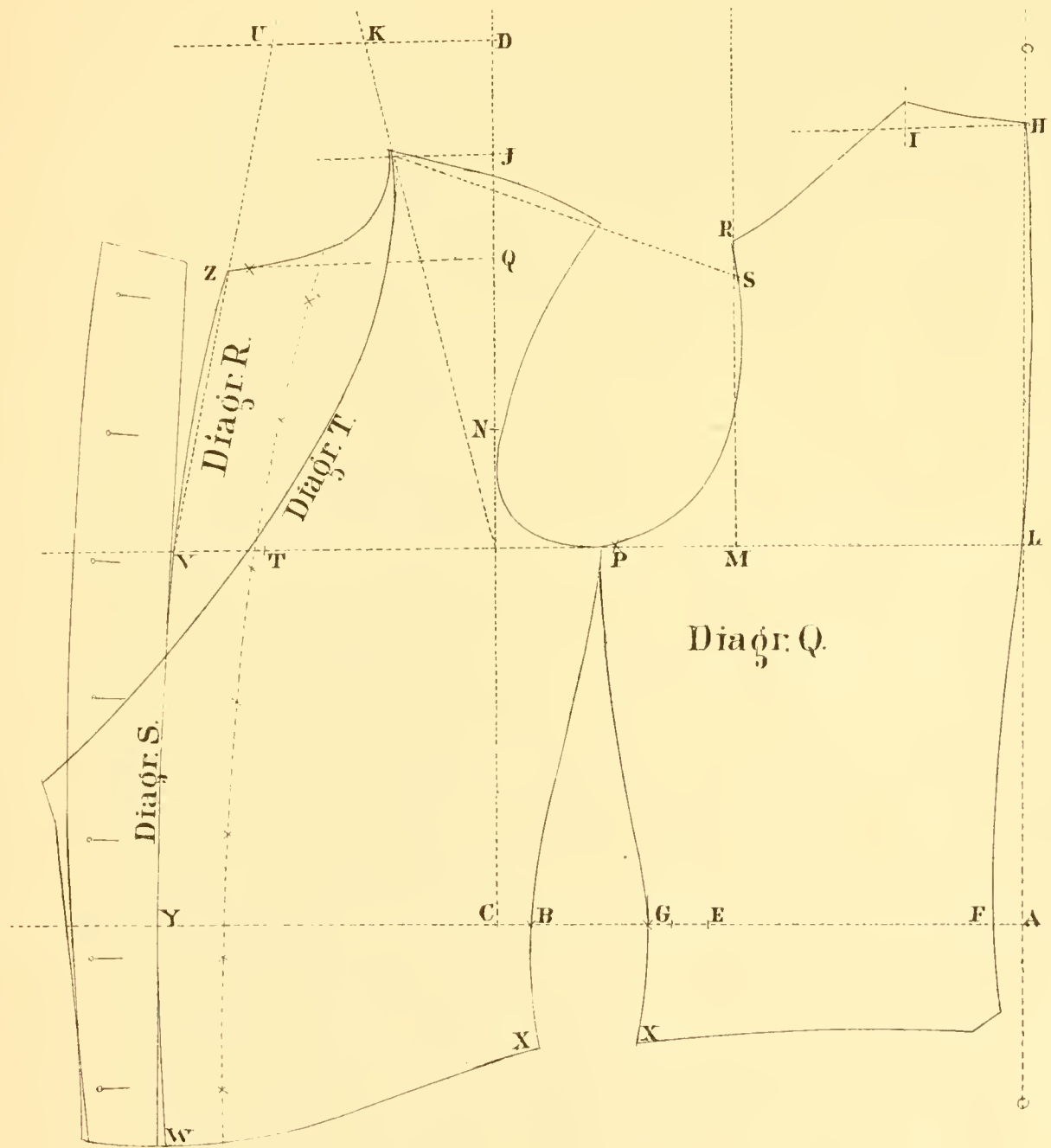
one-sixth, or 3 inches, from B to X, and draw the bottom line by these points—mark out from B, $\frac{1}{2}$ inch less than one-half breast, ($8\frac{1}{2}$ inches).

Having now all these points, then commence and finish the draft. Shape centre of back from H to L, through F to bottom. Then from R to P—from P, through G, to Z. Now cut the back out and bring it on top of front shoulder, and finish as before stated in actual measurement. Draw arm seve to P—from P, finish side line to B, to X. Then draw line for bottom of back as shown in the Diagram. Next finish the neck, from J K lines to point of collar, then from V, through Y, to W—and all the rest as shown in actual measurement.

In regard to the draft of the different styles of Vests, as in Diagrams Q, R, S and T, this is done in the same manner as before stated, and does not need further explanation.

Having shown this draft of a 36 size, we will say that, providing the Cutter will use "The Cutting Table of Proportions," and follow the instruction as herein given, he will produce a set of Patterns which are equal to any that he may order from pattern establishments.

And by this the Vest System is ended.



THE
SELF-BALANCING
PANTALOON SYSTEM.

PREFACE.

In the present improved Pantaloon System, which is introduced by these lines, the Author claims that he has brought out and developed in a condensed form the most COMPLETE, CORRECT, and SIMPLIFIED, SELF-REGULATING PANTALOOON SYSTEM ever gotten up.

In it the Cutter will find the whole ground plan upon which true Pantaloon Cutting is based, and the only correct principles by which a correct Draft will be produced for all the various forms of the human body for which the Cutter may be called upon to provide a covering.

The system provides for all the so-called slim bodied, straight-legged, bow-legged, knock-kneed, and pot-belly forms, and is fully illustrated by three Plates of Diagrams, with full instruction how to draft.

The Author advises all to follow out the instruction as herein laid down in each lesson, and if so, the System cannot fail, to give entire satisfaction to all who may use it.

FIGURE 3.

ILLUSTRATION OF POINTS AND MEASUREMENT.

The first important step toward successful PANTALOOON CUTTING is, that we must have a correct measurement. We must know the exact length and dimensions of the form for which we are called upon to provide a covering.

We must bear in mind, that unless the measures are correct, the garment cut according to them cannot be correct.

Therefore we say, too much care cannot be taken when the tape measure is applied to the body.

But before we apply the tape measure we should make it our rule and ascertain the following points :

First: See that the pantaloons the customer wears are close up in fork, so they will not interfere with the tape, when applied from these points.

Second: Ascertain the style in which your customer prefers them ; then we find that most gentlemen have their own style and likings, in regard to height of waist and to the amount of material they prefer at different parts.

Having done so, then we commence and mark our points as shown in Figure 3.

First, make a mark on top of side seam, or, rather, where the waistband shall join the top of side seam, as at A. Having this point, then bring the arm of square flat against this mark ; let the other arm of square rest in front, as at D. Now, as the square rests in that position, being in a horizontal line with the body, or, in other words, level with the floor, then make a mark in front for top of fly line, as at D. Having these points, then we go on and show

THE MEASUREMENT.

Let A be the starting point—measure from A to B, full length of side seam, say $41\frac{1}{2}$ inches. Then from D, down in front of fly to bottom of inside seam as at C, say 41 inches. Next, place the tape measure close up in fork, let it run down to C, and take full length of Leg, say $31\frac{1}{2}$ inches. Then apply the tape around the bottom, as shown by E, and measure according to fancy or fashion, say 17 inches. Next measure the Knee, as shown by F, line, also according to fancy or fashion, say 17 inches. The next measure is the Thigh, as shown by G. Now here we must say, as that measure is intended to prove the Fork points, we advise all Cutters to use the utmost care, and have the measure correct, otherwise it would be best not to take it at all.

Bring the tape between the legs, then close up in fork, and then around the non-dress side of leg in a straight line with fork in a close-fitting manner, so it will show the actual size of leg, say 21 inches. Next take the Seat measure, as shown by S. This measure should be taken over the most prominent part, and furthermore, moderately tight, very much in the same way as you would take the Breast measure for a Coat—bring the tape around the body and note the amount, say 36 inches—next take the Hip measure as shown by H, line—and this should be taken around the most prominent part of Hip, say 34 inches—next take the Waist measure as shown by K, say 30 inches.

The next and last measure is the Balance Measure. Bring the tape between the legs, pull it up close in fork, let one end of the tape rest on A,

and then bring the other end of the tape to the same point, as shown by L lines, say 32 inches.

NOTE: This measure should be taken in a close-fitting manner, and with care.

This concludes the measurement, summed up as follows:

41½	inches	Side length.
41	"	Front "
31½	"	Leg "
17	"	Bottom measure.
17	"	Knee "
21	"	Thigh "
36	"	Seat "
34	"	Hip "
30	"	Waist "
32	"	Balance "

We have now taken the measurement. We will next turn our attention to the System, and to the figure which we have to cover. My object in doing so is to show the fundamental principles upon which the System is based and that it contains the different points and lines as most readily found on the form, and also to show you these principles as distinguished from the principles of other systems. Cutters who give their attention and study to Pantaloon Cutting are in general very much divided in opinion as to which is the proper location for the base or construction line. Now some cutters will say, 'draw your side line of front (as from O, to O, Diagr U) and by this square out from bottom, fork, and top line, and finish the draft by those lines.' But this we find is entirely wrong and does not meet with the form of leg and body—it will shorten the bottom of inside seam $\frac{3}{4}$ inch (as at J, Diagr U) bring the fork line 1 inch up, and lengthen the top of fly $1\frac{1}{8}$ inch and therefore give openness to the legs, of 8 inches, which amount they will spread apart at bottom when made up.

Then again, some Cutters will say: mark out at fork line from side of front, $\frac{1}{4}$ of seat, and at bottom one-sixth of seat, then draw your base line (as at K, F, line) and from this square lines at right angle. Now we must confess that this class of Cutters come very near to the point, but it is true also, that this line must change from $\frac{1}{4}$ of seat, and does not hold good in all cases. Again, some Cutters claim that by applying $\frac{2}{3}$ of seat, from side line out to centre of fork, and at bottom $\frac{1}{2}$ of seat out to centre of leg (as at line I and X) that this would be the only safe rule to follow and work out the draft. Now here we must say, This will hold good in some cases, but not in all.

But we admit now, that either of these lines could be made the base line, and by adopting certain modifications in one of them, the same result might be produced as in Diagram U. But if we take a glance at the figure, or form of body, (which is the main subject of our lesson), we will find that a line drawn from top of fly to the inside of leg, (as at C, Figure 3), will be the most reliable and certain base line which we can either adopt or find—and this line we have in the draft of Diagram U.

We will therefore set up the following points which we intend to prove in the first draft:

1st, We prove that L D is the most proper and reliable base line.

2d, That this base line will bring the bottom of pants at right angle or level with the floor.

3d, This base line will show how far the side line has to be drawn in at bottom from the plumb line so that it will meet the form of leg.

4th, We prove the value of the front length measure.

5th, We also prove the value of the thigh measure, if correctly taken and applied.

PLATE XIII.

SHOWING THE FUNDAMENTAL PRINCIPLES OF THE SYSTEM.

Now before we show these principles I want it understood that this is not the System which I am to lay before you for daily practice: this we do in Diagram V.

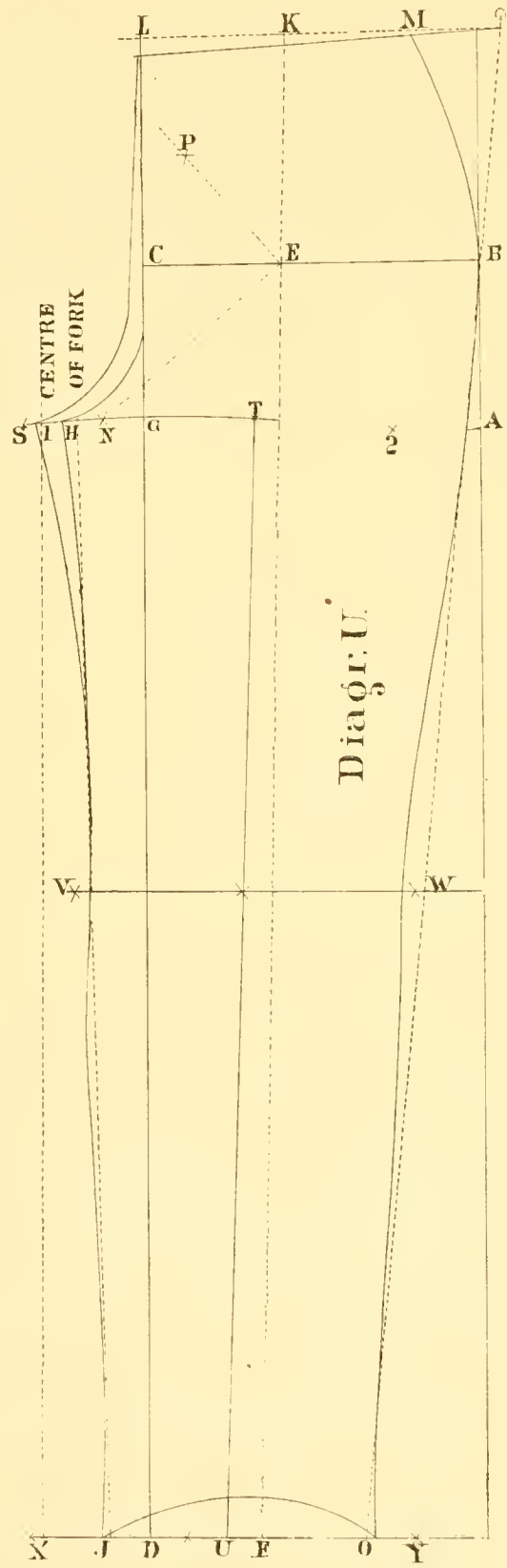
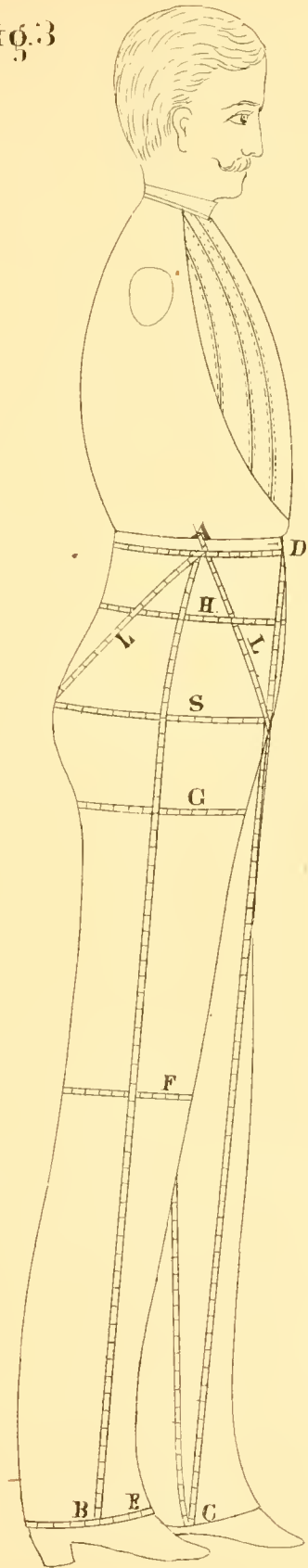
Therefore, any Cutter who should not feel inclined to investigate this matter may turn direct to Diagram V, where he will find the actual System for daily practice.

Diagram U.

Draw a perpendicular line on side as shown by dark line—square out to L. Then mark off side length from top to bottom 41½ inches—square out at bottom to X—mark out to D, one-half of seat

measure 9 inches—also the same amount out on top to L. Now place a long ruler on L and D, and draw a line down, and we have our base line, which will meet with the form, as from D to C, Figure 3—and this will prove our 1st point which we have set up. Then mark from D to G, leg measure 31½ inches—G to C, one-fourth of seat, 4½ inches—square in from C to B—mark from D to O one-third of bottom measure, 5½ inches. Now bring ruler on O and B and draw a line as from O to O and we have the actual side line of front part—and by this we prove our 3d point, showing that the side line is drawn 3½ inches from the plumb line at bottom—and furthermore,

Fig. 3



should we square our bottom and top by this line it would shorten the inside seam at D $\frac{1}{2}$ inch and lengthen the top at L $1\frac{1}{2}$ inch. Having shown these points we go on and mark in from C to E one-fourth of waist $3\frac{3}{4}$ inches—mark F in centre of O and D, then bring ruler on these points and draw a line from K through E to F and we have the line, which, when the pants are made up, will fall directly over the knee and rest upon the instep. Now as we have drawn this line it will prove at once that it does not meet with $\frac{1}{4}$ of set at fork line as above stated by some Cutters, and only does when the waist is the same amount as seat measure. Having shown this, then mark one-fourth of bottom measure $4\frac{1}{4}$ inches from F to J. Then measure from O to J and bring $\frac{1}{4}$ inch more than one-half out from O to U—next mark centre of U and D as shown by *—bring the tape on * and sweep out from G to S, and also into T. Having this then mark the fork points, bring one-eighth of seat $2\frac{1}{4}$ inches, from G to H, and mark N in centre—from N, mark out one-eighth of Seat to S, which we make the point for underside or back. Now mark centre of H and S as shown by word "*Centre*," and draw a plumb line down to X, which is now the actual centre point of Fork between front and back—from this centre point mark in one-third of seat, 6 inches, to T, and we are prepared to prove those points by the Thigh measure, which we find calls for 21 inches. Take one-third of this measure, 7 inches, and apply it as follows: Measure from T to H, $5\frac{1}{4}$ inches, bring the amount, $5\frac{1}{4}$ inches, on N, and extend the tape out to S, and we will find the whole amount which we now have is $7\frac{1}{2}$ inches, or $\frac{1}{2}$ inch more than one-third Thigh, and being allowance for seams. This will show that the points as already established by seat measure does correspond with the Thigh measure.

But here I must say, that, whenever a disproportion should exist between the Thigh and Seat measure, then divide the difference and take the centre between them. For instance, if these points T, H, N, S, as established by Seat, should be as above $7\frac{1}{2}$ inches, and the Thigh measure should call for 24 inches, one-third of which would be with $\frac{1}{2}$ inch allowance for seams, $8\frac{1}{2}$ inches—here we would have one inch more Thigh than Seat for those points, which we would apply as follows: We would take $\frac{1}{2}$ inch and add $\frac{1}{4}$ inch to H, and $\frac{1}{4}$ inch to S, which points we bring that amount further out, and draw our fork lines by those points. This includes also cases in reverse where the Thigh is less than Seat; mark one-half the difference in from H and S, and draw the

fork lines by these points. Now this will prove our 5th point, the Value of the Thigh measure.

But this measure will show more than this, as above stated. If we would apply the remaining two-thirds of Thigh from those points where we have applied the one-third for fork points, say one-third or 7 inches from N to 2—then from 2 to side line of front and back again to T, we will have the two-thirds and $1\frac{3}{4}$ inches more, or in all $15\frac{3}{4}$ inches. Now add one-third and $\frac{1}{2}$ inch of fork points to this and we have the full Thigh measure and $2\frac{1}{4}$ inches more for seams and ease for the wearer. This, of course, is not necessary that we must apply the full Thigh. The principal point is at fork, where the points established by Seat should correspond with the one-third Thigh.

Having explained this more in length than we intended to do we go on and finish the draft.

Draw a line from T to U,—also from J to $\frac{1}{2}$ inch inside of H. Then find the Knee line, apply one-half of leg measure $15\frac{3}{4}$ inches from D up, and make a mark; from this mark bring $2\frac{1}{4}$ inches in all cases up to Knee line, and square across. Now apply one-fourth of Knee measure $4\frac{1}{4}$ inches from * at T, U, line out to V, and make a mark—from this mark V apply one-half Knee measure into W, and allow $\frac{1}{2}$ inch for seams at this point, and make a mark.

Having these points, then apply one-fourth of waist measure, $3\frac{3}{4}$ inches, from K to M and make a mark—then from K to L, and allow one seam at that point.

Next finish the top line—We have drawn a square line from O to L, but this is not what we call the top line of front; this we must now find. Apply the front length measure, 41 inches in the measurement, from D to L, and make a mark. Having this, then place the ruler on M, top of side length, let it rest on L, and draw top line out—and by this we prove our 4th point, the value of front length measure.

Now, as we have all these points, we go on and finish the front—shape the fly line for non-dress side from L to H—then from H, draw a gentle curved line to V, or mark made by Knee measure, then to J at bottom—mark out one inch from H to I—then shape the fly line of dress side from L to I, and from I draw a gentle curved line down, as shown in Diagram. Next finish the side line from M to B, to A, through W, to bottom at O—also shape the bottom according to fancy or fashion, and the whole as shown in Diagram U—and our first Draft is finished.

In regard to the shaping of side line below A, this is not absolutely necessary, and may be

left straight from A to O. This is only a matter of taste, and the Cutter may choose for himself which plan he will adopt.

But in the tight-fitting pants, I prefer the shaping of the side line to the form of the leg.

Now, as we have shown the ground plan of the

System, and the working of the different measures in the draft, and also have proved our points as set up in the introduction of Diagram U, we are ready to take up our next diagram and show how to draft direct to the material, and lay before you the System for daily practice.

PLATE XIV.

Diagram V.

Draw a line along the edge of the material, as represented by O O line—but, if possible, then draw this line one inch from the edge at bottom so that the inside seam of leg will not be too much on the bias. By this line square out to M—and we now proceed by the same measures as given in Diagram U.

Measure from top or M line down to O, side length, and allow one seam for top, ($41\frac{3}{4}$ inches)—from O to A, length of leg, and one seam ($31\frac{3}{4}$ inches)—A to B, one-fourth of seat measure, ($4\frac{1}{2}$ inches)—bring the square on side line, angle resting on B, and make a mark at C—B to C, one-half seat, and $\frac{1}{4}$ inch in all cases, ($9\frac{1}{4}$ inches). Then mark out at bottom, O to D, one-third of bottom measure, $5\frac{5}{8}$ inches. (Now here I must say, whenever the bottom is more than one-half seat, as will be the case in large spring bottoms, then in all such cases take one-third of seat from O to D). Having those points, then bring the ruler on D and C, and draw a line from L, through C, to D, which is now the construction line, by which we square all the horizontal lines across—place the square on this line, let arm rest on mark made by side length at O, and transfer the bottom line through D, to J—then place the square on construction line at C, let arm rest on B, and draw a line from B to C.

Now mark from C to E, one-fourth of waist, $3\frac{3}{4}$ inches—mark F in centre of O and D—bring ruler on F and E, and draw a line from K through E to F. Then apply one-fourth of bottom measure from F to J, and make a mark. Next measure from O to J, take one-half of the amount, add $\frac{1}{4}$ inch in all cases, and bring this from O to U—mark centre of U and D and make a mark as shown by *. Then apply the tape measure from D, mark up one-half leg measure and make a mark—then to G, length of leg, and allow $\frac{1}{4}$ inch for seam—then to L, front length measure, and allow one seam, ($41\frac{1}{4}$ inches). Then mark one-fourth of waist, $3\frac{3}{4}$ inches, from K to M—the same amount from K to L, and allow one seam at that point. Now place the ruler on top of side seam, as at M, let it rest on L, and draw top line from L, through M, to O—next place

the tape on * in centre of U and D, and sweep from G to S and T. Having this line then mark the fork point—from G to H, one-eighth of Seat $2\frac{1}{4}$ inches, and mark X in centre—then apply one-eighth of Seat, from X to S, and mark I in centre—from centre at I mark in to T, one-third of Seat, 6 inches, and make a mark. Then prove these points by the Thigh measure—take one-third of Thigh, 7 inches, measure from T to H—bring the amount on X and measure to S, and allow $\frac{1}{2}$ inch for seams, $7\frac{1}{2}$ inches—(See Diagram U.)

Now draw a line from T to U, which line we make the centre of leg. Next draw a line $\frac{1}{2}$ inch inside of H down to J. Draw knee line $2\frac{1}{4}$ inches above mark made by one-half leg measure. Mark out from * at T U line to V, one-fourth of knee measure, $4\frac{1}{4}$ inches—from V mark in to W, one-half of knee, and allow half inch for seams, 9 inches. Having all these points, then commence and finish the front—draw fly line from mark at waist to centre of C and G, then curve out to H—from H draw a gentle curved line through V to bottom. Now mark out from H to I, one inch, and by this we form the fly and leg seam for dress side—draw a corresponding line from L to I, (or one inch) and then down, as shown in Diagram. Then finish the side line from M through B to A, through W to bottom—also finish the bottom as shown in Diagram, and the whole according to fancy or fashion.

Now Cut the front out, and this brings us to

The Draft of Under side.

Place the front part on the cloth in the most convenient position, if the cloth is of a striped material, then the line K, F, should run parallel with the stripe on underside.

Having this, then commence and extend the lines from front part to underside as at V and W, X and Y. Sweep out to S—place the tape on O at bottom and draw a sweep line from O to R, which is the line for length of under side at top.

The Cutter should be very careful and not displace the front part after these lines are once drawn, otherwise those marks should be brushed out and a new start made—then it stands to rea-

son should we displace the front from these lines we would draw the pants out of balance.

We then begin at bottom, and apply the measure, which is 17 inches. Measure from U to J, (say $3\frac{1}{2}$ inches in this draft), bring the amount on U, and mark out to X one-half of bottom measure, $8\frac{1}{2}$ inches, and make a mark.

Now measure full width of front as from J to O, say 7 inches, bring the amount on X and apply full bottom measure, and one inch allowance for seams to Y.

Next, apply the knee measure in the same manner—from * at T, U, line to V, (say $4\frac{1}{4}$ inches) bring the amount on * and mark one-half of knee measure out to V, for under side. Now measure the whole width of front from V to W, place the amount on mark made for under side at V, and mark full knee measure with one inch allowance for seams to W. The Cutter will see at once that all the allowance for seams are placed on the outside of leg.

Next mark out from N to S, one-eighth of seat, as before shown in proving the thigh measure. Having this point, then place the angle of square on E, let long arm rest on N, and draw a line up to P—on this line mark, from E to P, one-fourth of waist, $3\frac{3}{4}$ inches. Now place the ruler on N, underneath the front part, let it also rest on P, and in that position draw a line down for centre seam of back, or seat line. Then draw O line, which is now taken off by cutting out the front, up to underside—bring the tape on N, let the tape and chalk rest on top of said line as at O, and sweep out to Q, which gives the length of Back. Having this, then mark out from O to R, one-sixth of waist, or $2\frac{1}{2}$ inches, and make a mark.

Now to prove the correct angle of under side, we apply the balance measure as follows: Measure from H to M, in a direct line, (say $14\frac{1}{2}$ inches), bring the amount on S, let the tape come in the same shape as fork line of back, then up in a direct line to R, full measure, 32 inches, and allow $1\frac{1}{4}$ inch more for seams. This, as we will find, corresponds with the point as already established by waist measure. But in cases where a disproportion will exist between these points, then take the centre, and make this the point R—providing the Cutter is certain that the balance measure is taken correctly.

Now draw a straight line from R to Q, and shape the top of back as shown in Diagram. Next apply the waist measure from L to M, bring the amount on Q, then in on top line to R, and allow $1\frac{1}{2}$ inches for seams, and whatever the difference may be from this mark to R, take it out by aV, as shown in Diagram.

Next apply *Seat* measure, from C, to side seam of front, as at Z, which is the centre of A and B—bring the amount on back line at C, and mark out for side line of underside at Z, $\frac{1}{2}$ of seat, (18 inches), and allow 2 inches more for seams and ease, and make a mark. NOTE: The extra allowance must be according to the customer's wishes. If more ease is wanted make it $\frac{1}{2}$ or even 1 inch more, but in general practice 2 inches is sufficient.

Next apply the *Hip* measure, bring the tape on front of fly in centre of C and L, let it run to side line of front in centre of top line and Z (say $8\frac{1}{2}$ inches), bring the amount on P, then in to side line of under side, in centre of R and Z, full measure, 17 inches, and allow 2 inches for seam and ease.

Having all these points, we are ready to finish the draft. Shape the fork line of back from centre of C and G out to S—from S down through V to X—give a little rounding below the knee so it will show the form of the leg.

Then commence and draw the side line, from R through mark of *Hip* and *Seat* down through W to Y—give a little rounding also below the knee as shown in Diagram.

Now mark $\frac{1}{2}$ inch below X and Y, and finish the bottom of under side by these points.

The next point is, bring the tape on * at knee line, and sweep in from A, to side line, which points must meet when the legs are joined.

Having finished all these points, then we are ready to cut the back part out—and, when cut, then notch all these points, V and W, also sweep line at A, top and under side, and our draft (Diagram V), is finished.

The necessary Instruction how to make them up.

In regard to making up, pains must be taken by the tailor to stretch and shrink the different parts as they will need; and then in joining the leg, care must be taken that all notches will meet. It is certain that, should this be neglected by the tailor, it will produce a bad effect in the hang of the pants. Therefore too much care cannot be taken on these points.

The first thing which is necessary: Have the underside stretched from V to S, so they will correspond with the length of front part. Now whatever the amount may be which we have to stretch on the inside seam between these points, the same amount must be stretched also on the outside seam from W, to sweep line at A. Then below the knee (say 5 inches below knee line) the underside should be shrunk in, equal on both sides.

Next, have the front stretched from bottom to

within 5 inches of knee line, of an equal amount on both sides (say $\frac{3}{4}$ inches more or less.)

Now when joined, and the seams pressed out, then have the legs folded so that K, F, line will form the crease in front, and have them pressed to the form of the leg. The back should be shrunk in from the knee up to fork line—below the knee they should form the calf of leg, and below this point the front should be brought out so it will form the necessary spring on bottom of

whatever amount the fashion may call for. The Cutter will find that by so doing all the loose cloth in those places are taken away, and a nice smooth-fitting pants will be produced. We therefore say once more, too much care cannot be taken by the tailor, to have the pants properly joined and pressed, because the graceful appearance of the pants when on the customer will depend in a great measure on the making up.

Diagram W.

SHOWING HOW TO PRODUCE A PAIR OF PANTS FOR A CORPULENT MAN.

This Diagram will show the whole working of the System. The changes which we find at point D and E are made according to the requirement of the form—otherwise the drafting is the same as in Diagram V.

The principal part is here as in all other cases—a *correct measurement*; and if so, a good fitting pants will be produced, which will give satisfaction to both Customer and Cutter.

The measures are taken in the same manner as shown in Figure 3, and as before explained.

We suppose now the figure will give the following measure:

43	inches	side length.
44 $\frac{1}{2}$	"	front "
31	"	leg "
19	"	bottom measure.
20	"	knee "
27	"	thigh "
44	"	seat "
46	"	hip "
46	"	waist "
40 $\frac{1}{4}$	"	balance "

The Draft.

Draw a line on edge of material—make a mark $\frac{3}{4}$ inch below the top end of cloth and let this be the starting point. Bring the tape on this mark, and mark off side length, and $\frac{1}{4}$ inch more, to O, 43 $\frac{1}{4}$ inches— from O, to A, leg measure and one seam, 31 $\frac{1}{4}$ inches—A, to B, one-fourth seat—B, to C, one-half seat and $\frac{1}{4}$ inch, 11 $\frac{1}{4}$ inches—from O, to D, one-third of bottom measure—mark F, in centre of O, and D—F, to J, one-fourth bottom. Having these points, then we must draw the construction line as from L to D—but before we can do so, we must consider that this class of men will need more openness of legs, than the so-called slim form, or in other words his feet when in natural standing position will be more apart. It is therefore necessary that the amount is noticed when the measures are taken. We suppose now that this figure will require 1 $\frac{1}{2}$ inches—take one-half of the amount, or $\frac{3}{4}$ inches, and mark it out from D to D D, and we have the correct point by

which we must draw our construction line—place the ruler on C and D D, and draw a line from L through C, to bottom—transfer the side length, by placing the square on construction line, from O to J, same as in Diagram V—also square out from C to B..

Next we must find point E. Now here we must make a change from the slim form—you will remember, that we have applied $\frac{1}{4}$ waist from C to E, in Diagram V—which is correct in all cases where the waist is less than seat. But here we have 2 inches more waist than seat, and therefore we apply one-fourth of waist, 5 $\frac{3}{4}$ inches, from B to E, and this point is established according to the form of body. We must now say, that these two points are the only changes in the whole draft from Diagram V, except the measures which bring the form.

Place the ruler on E and F, and draw a line from K, down. Next apply the leg and front measure—bring the tape on D D, mark up 2 $\frac{1}{4}$ inches more than one-half leg to knee line, then to G, length of legs and one seam—then to L, length of front, and one seam, 44 $\frac{3}{4}$ inches, and make a mark—measure width of bottom as from O to J, take one-half and $\frac{1}{4}$ inch more, and bring this from O to U—mark centre of U and D D—bring the tape on this point, and sweep from G to S, and T. Mark out from G to H, one-eighth of seat, and mark N in centre—then one-eighth seat, from N to S, mark I, in centre—from I to T, one-third of seat.

Now prove these points by thigh measure, as before stated in Diagrams U and V—draw a line from T to U—also from H to J—mark out from * to V, one-fourth knee measure—then from V, one-half of knee and $\frac{1}{2}$ inch more for seams, to W.

Next apply one-fourth of waist from K to M—also the same amount from K to L, and allow one seam—draw top line, from side length to mark made by front length, as from M to L.

Having all these points, then apply the hip

measure, which we find is 1 inch more than seat, and which shows that the belly is so much further out at that point of measure than at seat line. Now take this 1 inch and mark it out from construction line to fly as from * to*, and we are prepared to finish the front—draw the fly line from L, through *, to H, from H, through V, to J—also a corresponding line for dress side as before shown.

Then draw side line from M, through B, to A, through W, to bottom, as shown in Diagram V, and cut the front out.

The Draft of Underside.

Place the fronts on the cloth in a position as economical as possible, and then extend the lines from front part as before stated in Diagram V. Sweep out from M to R, by O, at bottom. Having this, then apply the bottom measure from U to J, bring the amount on U, and mark out to X, one-half bottom, $9\frac{1}{2}$ inches; then measure the full front, J to O, bring this on X, and measure in to Y, full bottom, and allow 1 inch more for seam. Then apply the knee measure from * at U T line to V, in the same manner as bottom. Always bring the allowance for seams on the outside line of leg. Next mark out on sweep line at fork, from N to S, one-eighth of seat—bring angle of square on E, let arm rest on N, and draw a line up to P, which point is one-fourth of waist from E. Now draw a line from N, through P to Q. Mark out from O to R, one-sixth of waist, or

$3\frac{3}{4}$ inches—bring the tape on N, and make a sweep from O to Q,—draw a straight line from R to Q, and shape the top of underside.

Now the next thing must be to prove point R by the balance measure, which is $40\frac{1}{4}$ inches—apply the tape from H to M, then from S to R, full measure, and $1\frac{1}{4}$ inches allowance for seams as before explained in Diagram V. Next apply the hip measure from fly line in centre of C and L to side line of front, bring the amount on P, and then across to side line of under side as before stated, and allow 2 inches more than one-half hip, $24\frac{3}{4}$ inches. Next apply the seat measure from C to Z, in the same manner, and allow 2 inches for seams and ease.

Having this, then finish the under side, as in Diagram V, from centre of C and G, out to S—from S to V, down to X, then from R, through mark of hip and seat to W, and down to Y. Also finish the bottom by $\frac{1}{2}$ inch below bottom line at X and Y. Sweep from A, by * at knee line, out to side seam of under side. Then apply the waist measure, L to M, then from Q to R, which we find is $1\frac{1}{4}$ inches more than one-half of waist and is the allowance needed for seams. This shows that the V, which we have taken out in back of Diagram V, is not needed in this draft.

Now, as we have finished our under side, cut it out and notch all these points V, W, and A as before stated, and the draft of Diagram W is finished.

PLATE XV.

Diagram X.

SHOWING THE DRAFT OF THE SO-CALLED BOW-LEGGED FORM.

This class of men, when in natural position will stand with heels close together, but from there the legs will spread apart, so that a space along the inside of legs will be seen, which is of more or less extent—but whatever it may be, we find the largest amount between the knees. To meet the requirement of the form, and to provide a covering which will give full satisfaction to cutter and customer, it is necessary that certain changes have to be made in the draft, from the regular straight form of leg; and these changes we intend to show in this Diagram. The measurement is the same as Figure 3. But as we intend to explain the whole, and by so doing make sure work, we must therefore add one more measure, by which we ascertain the real amount which we have to apply in the draft. This measure is very simple, but sure. Let the customer stand in natural position, with heels close to each other, then measure between the legs from knee

to knee, (say 4 inches), and we have the true guide to draft by.

We therefore say, that any other plan which the cutter may have, or that he may adopt without this measure, is only guesswork and uncertain.

The measures we suppose are as follows :

41	inches	side length.
41	"	front "
31	"	leg "
17	"	bottom measure.
18	"	knee "
21	"	thigh "
36	"	seat "
$33\frac{1}{2}$	"	hip "
31	"	waist "
32	"	balance "
4	"	spread of knees.

The Draft.

Draw a line one inch from the edge of material which represents O O line, and square out to M,

from this line to O, side length and one seam—O to A, leg and one seam—A to B, one-fourth seat—B to C, one-half seat, and one seam—O to D, one-third bottom—F in centre of O and D—draw line from L, through C to D—square out by this line from D to O, and then draw line to J—also square from C to B—mark up from D, $\frac{1}{2}$ leg and $2\frac{1}{4}$ inch to knee line—then to G, length of leg and one seam—then to L, front length, and one seam—C to E, one-fourth waist—draw line from K, through E to F—F to J, one-fourth bottom—measure from O to J, take one-half and $\frac{1}{4}$ inch more and bring it from O to U,—mark centre of U and D—bring tape on this mark, and sweep out from G to S, and in to T—G to H, one-eighth of seat, N in centre—from N to S, one-eighth of seat, I in centre—from I to T, one-third of seat—prove these points by thigh measure as before stated—draw line from T to U—also draw knee line—mark one-fourth of waist from K to M—then from K to L, and allow one seam at that point—then draw top line from L to M, to O.

Having all these points and lines; then comes the changes which we must make to meet the form of leg. The spread of knees is 4 inches, which gives 2 inches for each side of leg. Now take these 2 inches, and apply one-half or 1 inch, from T U line to 1, at knee, and make a mark—also the same amount from K F line in to 2, and make a mark. Having these points, then place the ruler on T, and 1, and draw a line to knee, then from 1 at knee to U, as shown by dark line. Next draw a line from K to 2, then from 2 to F, and we have these lines in harmony with the form of leg. Next apply the knee measure, take one-fourth, ($4\frac{1}{2}$ inches) and bring this out from 1 to V—from V, mark in one-half of knee, and $\frac{1}{2}$ inch more for seams to W. Now, here we must

say to the inexperienced Cutter, that by applying one-half of the amount of spread to the front, the other half will be taken off by the under side or back.

Having established these points, we are ready to finish the front. Draw the line from L to H, also from L to I—then from H, through V to X, as shown in Diagram. Next draw side line from M, through B, through W to O. Also finish the bottom and the whole as shown in Diagram, and cut the front out.

The Draft of Under side.

Place the front on top of material—make a sweep by O, at bottom, from O, at top, to R—extend the lines at fork, knee and bottom—apply the bottom measure as shown in Diagram V, and W. Also the knee measure, from 1 to V, bring the amount on 1—and mark off one-half of knee to V—then from V to W, of front, bring the amount on V, and mark out full measure and one inch more for seams to W—next place the angle of square on E, at dark line, let arm rest on N, and mark up to P, one-fourth of waist—bring ruler on N and P, and draw back line of under-side—sweep by N, from O to Q—mark out from O to R, one-sixth of waist, and finish the top of back—then prove point R, by balance measure, as before explained—apply hip and seat measure as before stated, and allow 2 inches more for seams and ease. Having all these points, then finish the draft by drawing a line out to S, from S to V, to X—then from R, through hip, and seat, to W, and down to Y—mark $\frac{1}{2}$ inch below X and Y, and finish the bottom. Next apply the waist measure from L to M, then from Q to R, allow $1\frac{1}{2}$ inches for seams, and the balance take out by a V in back.

Diagram Y.

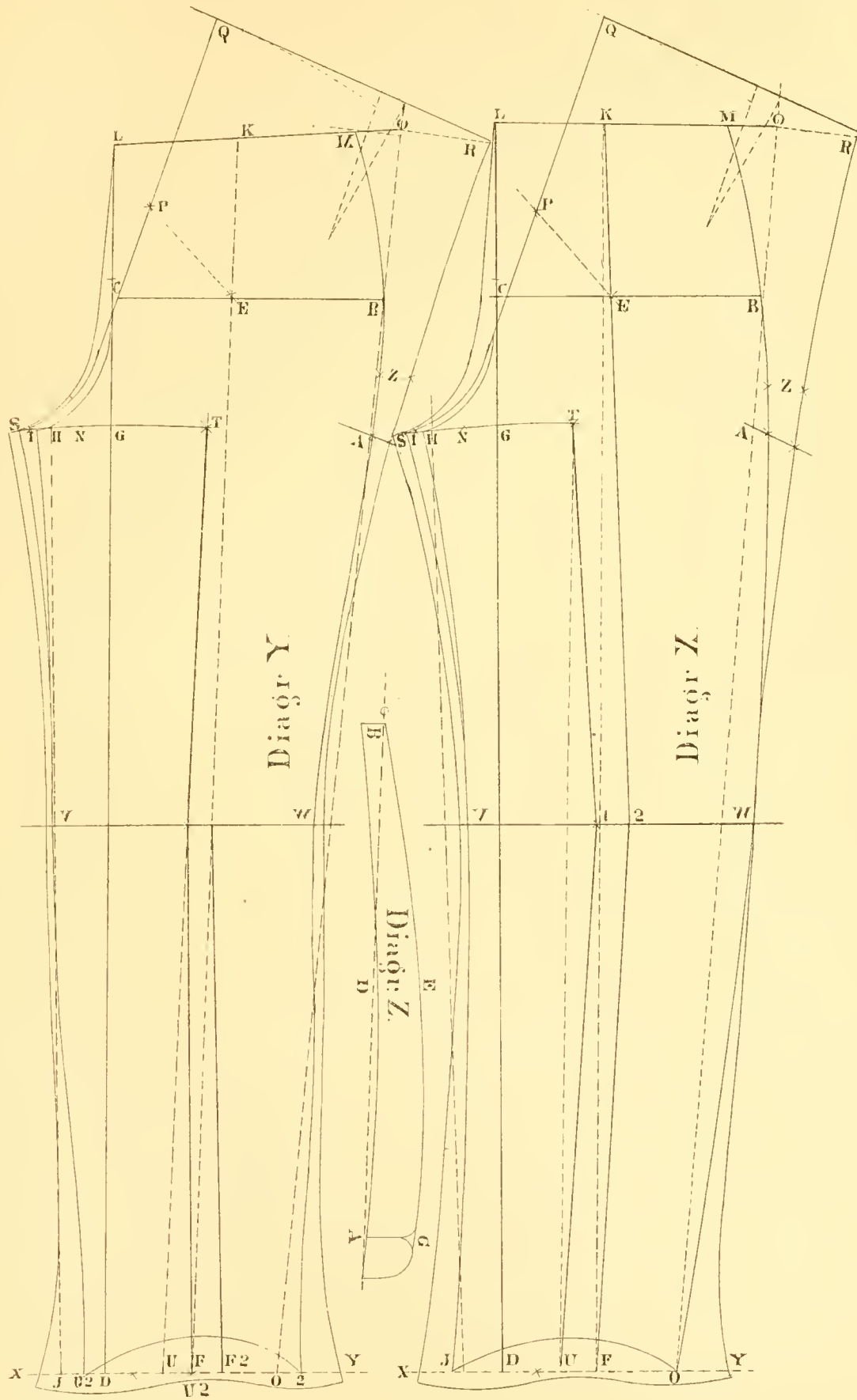
SHOWING THE DRAFT OF THE SO-CALLED KNOCK-KNEE STRUCTURES.

This is a class of men whose legs will touch closely all along the thighs to the knee, but then commence and spread gradually apart down to the feet, at which place we may find a space of 4 to 6 inches, and in some cases even more.

This shows to us that some certain changes from the regular straight-legged forms must be made; but how these changes have to be made so that they will meet the requirement of the form and prove satisfactory, is a question which we should not be too hasty to decide, and, especially, not before we have fully investigated the form.

Now, when we investigate the form, we find

they need exactly the same shape of body and leg down to the knee, as the straight form, but from the knee down they differ from each other—which proves that whatever change the form may need, it must be between knee and feet. It is now a clear fact, that a certain amount must be brought in from J, U, F and O, at bottom. But the question may arise, what is the certain amount which will hold good in all cases. We answer, take a measure that will show you the disproportion of the feet, and then I will tell you the certain amount. Therefore, let the customer stand in natural position with knees close together, and when so, then measure from heel to



heel, (say 4 inches)—and the certain amount which we must apply at these points is 1 inch.

The measurement is as shown on Figure 3, say:

42	inches	side length.	
41 $\frac{1}{2}$	"	front	"
32	"	leg	"
17	"	bottom measure.	
17	"	knee	"
22	"	thigh	"
38	"	seat	"
34	"	hip	"
32	"	waist	"
32 $\frac{3}{4}$	"	balance	"
4	"	spread of heels.	

The Draft.

All the main points are exactly the same as in Diagram V—square out to M—from this line to O, side length—O to A, leg measure—A to B, one-fourth of seat—B to C, one-half seat and $\frac{1}{4}$ inch added—O to D, one-third bottom, F in centre—F to J, one-fourth of bottom—draw line by D, and C to L—square bottom by this line out to O—also out to B—measure 2 $\frac{1}{4}$ inches more than one-half leg to V—full length of leg and $\frac{1}{4}$ inch to G—full front length to L—C to E, one-fourth of waist, and draw a line by F E, to K—one-half bottom and $\frac{1}{4}$ inch from O to U—* in centre of D and U—bring tape on * and sweep out from G to S—mark fork points as before stated, G to H, one-eighth seat, N in centre, from N to S, one-eighth, and mark centre point of fork—from this point mark one-third of seat to T—prove fork points by thigh measure as before stated—from K to M, one-fourth waist, also one-fourth to L, and allow for one seam—draw top line from L to M, to O—then from T to U—also from H to J.

Having all these points, then we are prepared to change the bottom lines so they will meet with the form of leg. The measure we have taken is 4 inches, which gives 2 inches for each leg. Of these 2 inches, we apply one-half to the front, and by so doing, the other half is taken off from the back or underside.

Now take the one inch, mark it in from J to J 2, also to U 2, F 2, and O 2, and we have the points which correspond with the form—then draw lines from knee down to these points, as shown by dark lines, by which we finish the bottom of front part. Having this, then measure out from T U line, one-fourth of knee to V, and from this point one-half of knee to W, and allow for seams and we are ready to finish the front. Draw the fly line from L to H, and from H, shape inside line of leg through V, to J 2—then from L to I, and down to V. Then from M, through B to A, through W to bottom at O 2, as shown in Diagram. Also finish bottom, and cut the front out.

Draft Under side.

Place the front on the cloth, sweep by O 2, from O to R, also extend the other lines from front across. Next apply the bottom measure—measure from U 2, to J 2, or inside line of front, bring the amount on U 2, and mark out to X, one-half of bottom, then apply the tape from J 2, to O 2, bring the amount on X, and measure to Y, full bottom, and allow 1 inch for seams.

Next apply the knee measure, from T U line to V, bring the amount on this point again, and mark out to V, one-half of knee measure—then from V to side line of front, bring the amount on V of underside, and mark out to W, full knee, and allow for seams. Now place the angle of square on E, let arm rest on N, and mark up to P, one-fourth of waist—draw back line from N, through P to Q—sweep by N, from O, to Q—mark out from O to R, one-sixth of waist. Then prove this point by balance measure, as before stated—apply the hip and seat measure, and allow for seams and ease, as in Diagram V.

Having all these points, then shape the back down to S, from S to V, to bottom of X—also from R, through hip and seat to W, down to Y, in the manner as before shown.

Now mark $\frac{1}{2}$ inch below X and Y, and finish the bottom of underside, and all the rest as explained in Diagram V.

The Cutter will find that we have drawn our bottom out on side line of leg just 2 inches, which the measure calls for.

Now as the draft is finished, then cut the back out, and notch all the points as before stated.

Diagram Z.

The Shape of Waistband.

It is not absolutely necessary that the waistband must be drafted as herein given—but we must say, that if this plan is adopted, the Cutter will be pleased with the result. Then by drawing a curved line on bottom the top part will spread more from the body, and therefore give more ease and comfort to the wearer.

We therefore give a guide to the student, by which he may produce it.

Draw a line from O to A—mark from A to B, waist measure, and allow one seam—mark down from B, one inch—then draw a curved line from A to B. Now mark up from A to C (say 2 inches)—then from D to E, same amount—then in back (say 1 $\frac{1}{2}$ inches)—and draw top line by these points.

Now cut the waistband out, have the parts made up as before stated, and the work is

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